

## **DENVER FRONT RANGE STUDY DIOXINS IN SURFACE SOIL**

### **Study 2: Characterization of Dioxins, Furans and PCBs In Random Soil Samples Collected from The Rocky Mountain Arsenal**

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Prepared for and jointly by:

U.S. Environmental Protection Agency, Region 8  
Denver, Colorado

working in cooperation with:

Remediation Venture Office of the Rocky Mountain Arsenal  
and  
Colorado Department of Public Health and Environment

with technical support by:

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Denver, Colorado

and

Gannett Fleming, Inc.  
Denver, Colorado

## **APPENDIX A**

### **RAW ANALYTICAL DATA AND CALCULATION OF TEQ VALUES**

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#### **APPENDIX A1**

##### **Results for Field Samples**

#### **APPENDIX A2**

##### **Results for the QC Samples**

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**APPENDIX A1. Field Results****FINAL**

Sample ID	463	Field		S1									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.821	3.284	2.07	NJ		1.035		0.1	0.1		0.4%	0.0%	
2,3,7,8-TCDD	0.0871	0.3484		--		0.04355		1	0.0		0.2%	0.0%	
1,2,3,7,8-PeCDF	0.0544	0.2176	23.1	--		23.1	23.1	0.05	1.2	1.2	4.4%	4.6%	
2,3,4,7,8-PeCDF	0.0404	0.1616	3.12	--		3.12	3.12	0.5	1.6	1.6	6.0%	6.2%	
1,2,3,7,8-PeCDD	0.0431	0.1724	0.673	--		0.673	0.673	1	0.7	0.7	2.6%	2.7%	
1,2,3,4,7,8-HxCDF	0.232	0.928	71.8	--		71.8	71.8	0.1	7.2	7.2	27.5%	28.7%	
1,2,3,6,7,8-HxCDF	0.206	0.824	27	--		27	27	0.1	2.7	2.7	10.3%	10.8%	
2,3,4,6,7,8-HxCDF	0.298	1.192	12.4	--		12.4	12.4	0.1	1.2	1.2	4.7%	4.9%	
1,2,3,7,8,9-HxCDF	0.502	2.008	22.1	--		22.1	22.1	0.1	2.2	2.2	8.5%	8.8%	
1,2,3,4,7,8-HxCDD	0.748	2.992		E	<5x*B	0.374		0.1	0.0		0.1%	0.0%	
1,2,3,6,7,8-HxCDD	0.0325	0.13	1.02	--		1.02	1.02	0.1	0.1	0.1	0.4%	0.4%	
1,2,3,7,8,9-HxCDD	1.04	4.16		E		0.52		0.1	0.1		0.2%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.234	0.936	458	--		458	458	0.01	4.6	4.6	17.5%	18.3%	
1,2,3,4,7,8,9-HpCDF	0.529	2.116	251	--		251	251	0.01	2.5	2.5	9.6%	10.0%	
1,2,3,4,6,7,8-HpCDD	0.195	0.78	17.4	--		17.4	17.4	0.01	0.2	0.2	0.7%	0.7%	
OCDF	0.0855	0.342	9630	CJ		9630	4815	0.0001	1.0	0.5	3.7%	1.9%	
OCDD	0.151	0.604	134	--		134	134	0.0001	0.0	0.0	0.1%	0.1%	
PCB-77	0.12	0.48	22.7	--		22.7	22.7	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.11	0.44	1.2	B	<5x*B	1.2	0.6	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	1.35	5.4	491	CJ		491	245.5	0.0001	0.0	0.0	0.2%	0.1%	
PCB-114	1.34	5.36	31.2	--		31.2	31.2	0.0005	0.0	0.0	0.1%	0.1%	
PCB-118	1.12	4.48	1130	CJ		1130	565	0.0001	0.1	0.1	0.4%	0.2%	
PCB-123	1.26	5.04		--		0.63		0.0001	0.0		0.0%	0.0%	
PCB-126	1.94	7.76	5.3	--		5.3	2.65	0.1	0.5	0.3	2.0%	1.1%	
PCB-156	0.636	2.544	163	--		163	163	0.0005	0.1	0.1	0.3%	0.3%	
PCB-157	0.671	2.684	39.6	--		39.6	39.6	0.0005	0.0	0.0	0.1%	0.1%	
PCB-167	0.618	2.472	64.1	--		64.1	64.1	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.102	0.408	0.921	--		0.921	0.921	0.01	0.0	0.0	0.0%	0.0%	
PCB-189	0.937	3.748	14	--		14	14	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
25.3	24.6	0.8	0.5	26.1	25.1

## APPENDIX A1. Field Results

FINAL

Sample ID	318	Field		S11								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0589	0.2356	0.375	NJ		0.1875		0.1	0.0		1.1%	0.0%
2,3,7,8-TCDD	0.0316	0.1264		--		0.0158		1	0.0		1.0%	0.0%
1,2,3,7,8-PeCDF	0.0928	0.3712	1.01	--		1.01	1.01	0.05	0.1	0.1	3.1%	3.5%
2,3,4,7,8-PeCDF	0.0685	0.274	0.413	--		0.413	0.413	0.5	0.2	0.2	12.6%	14.4%
1,2,3,7,8-PeCDD	0.0456	0.1824		--		0.0228		1	0.0		1.4%	0.0%
1,2,3,4,7,8-HxCDF	0.0515	0.206	1.42	--		1.42	1.42	0.1	0.1	0.1	8.7%	9.9%
1,2,3,6,7,8-HxCDF	0.0472	0.1888	0.919	B	<5x*B	0.919	0.4595	0.1	0.1	0.0	5.6%	3.2%
2,3,4,6,7,8-HxCDF	0.0544	0.2176		--		0.0272		0.1	0.0		0.2%	0.0%
1,2,3,7,8,9-HxCDF	0.0651	0.2604	0.615	--		0.615	0.615	0.1	0.1	0.1	3.8%	4.3%
1,2,3,4,7,8-HxCDD	0.518	2.072		E		0.259		0.1	0.0		1.6%	0.0%
1,2,3,6,7,8-HxCDD	0.689	2.756		E		0.3445		0.1	0.0		2.1%	0.0%
1,2,3,7,8,9-HxCDD	0.0267	0.1068	0.703	J		0.703	0.3515	0.1	0.1	0.0	4.3%	2.4%
1,2,3,4,6,7,8-HpCDF	0.0414	0.1656	5.79	--		5.79	5.79	0.01	0.1	0.1	3.5%	4.0%
1,2,3,4,7,8,9-HpCDF	0.0652	0.2608	1.68	--		1.68	1.68	0.01	0.0	0.0	1.0%	1.2%
1,2,3,4,6,7,8-HpCDD	0.0536	0.2144	17.7	--		17.7	17.7	0.01	0.2	0.2	10.8%	12.3%
OCDF	0.0447	0.1788	24	--		24	24	0.0001	0.0	0.0	0.1%	0.2%
OCDD	0.0355	0.142	143	--		143	143	0.0001	0.0	0.0	0.9%	1.0%
PCB-77	0.0862	0.3448	16.8	--		16.8	16.8	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.0973	0.3892	0.996	B	<5x*B	0.996	0.498	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	2.27	9.08	65.1	--		65.1	65.1	0.0001	0.0	0.0	0.4%	0.5%
PCB-114	2.37	9.48		--	<5x*B	1.185		0.0005	0.0		0.0%	0.0%
PCB-118	2.51	10.04	134	--		134	134	0.0001	0.0	0.0	0.8%	0.9%
PCB-123	2.85	11.4	4.15	--		4.15	2.075	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.053	0.212	5.75	--		5.75	5.75	0.1	0.6	0.6	35.1%	40.0%
PCB-156	0.324	1.296	29	--		29	29	0.0005	0.0	0.0	0.9%	1.0%
PCB-157	0.335	1.34	8.13	--		8.13	8.13	0.0005	0.0	0.0	0.2%	0.3%
PCB-167	0.33	1.32	15.8	--		15.8	15.8	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0678	0.2712	0.984	--		0.984	0.984	0.01	0.0	0.0	0.6%	0.7%
PCB-189	0.223	0.892	4.43	--		4.43	4.43	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.0	0.8	0.6	0.6	1.6	1.4

**APPENDIX A1. Field Results****FINAL**

Sample ID	567	Field		S12									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.034	0.136	0.24	NJ		0.12		0.1	0.0		1.1%	0.0%	
2,3,7,8-TCDD	0.0281	0.1124		--		0.01405		1	0.0		1.3%	0.0%	
1,2,3,7,8-PeCDF	0.0835	0.334	0.59	--		0.59	0.59	0.05	0.0	0.0	2.8%	4.3%	
2,3,4,7,8-PeCDF	0.242	0.968		E		0.121		0.5	0.1		5.7%	0.0%	
1,2,3,7,8-PeCDD	0.328	1.312		E		0.164		1	0.2		15.5%	0.0%	
1,2,3,4,7,8-HxCDF	0.0628	0.2512	0.881	--		0.881	0.881	0.1	0.1	0.1	8.3%	12.7%	
1,2,3,6,7,8-HxCDF	0.0559	0.2236	0.58	B	<5x*B	0.58	0.29	0.1	0.1	0.0	5.5%	4.2%	
2,3,4,6,7,8-HxCDF	0.0609	0.2436	0.551	--		0.551	0.551	0.1	0.1	0.1	5.2%	8.0%	
1,2,3,7,8,9-HxCDF	0.472	1.888		E		0.236		0.1	0.0		2.2%	0.0%	
1,2,3,4,7,8-HxCDD	0.328	1.312		E		0.164		0.1	0.0		1.6%	0.0%	
1,2,3,6,7,8-HxCDD	0.343	1.372		E		0.1715		0.1	0.0		1.6%	0.0%	
1,2,3,7,8,9-HxCDD	0.00726	0.0290	0.348	J		0.348	0.174	0.1	0.0	0.0	3.3%	2.5%	
1,2,3,4,6,7,8-HpCDF	0.0197	0.0788	3.48	--		3.48	3.48	0.01	0.0	0.0	3.3%	5.0%	
1,2,3,4,7,8,9-HpCDF	0.0266	0.1064	1.04	--		1.04	1.04	0.01	0.0	0.0	1.0%	1.5%	
1,2,3,4,6,7,8-HpCDD	0.0215	0.086	8.33	--		8.33	8.33	0.01	0.1	0.1	7.9%	12.1%	
OCDF	0.0113	0.0452	17	--		17	17	0.0001	0.0	0.0	0.2%	0.2%	
OCDD	0.0239	0.0956	70.1	--		70.1	70.1	0.0001	0.0	0.0	0.7%	1.0%	
PCB-77	0.0422	0.1688	13.7	--		13.7	13.7	0.0001	0.0	0.0	0.1%	0.2%	
PCB-81	0.0521	0.2084	0.764	B	<5x*B	0.764	0.382	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.734	2.936	49.1	B	<5x*B	49.1	24.55	0.0001	0.0	0.0	0.5%	0.4%	
PCB-114	0.767	3.068	2.27	B	<5x*B	2.27	0.5675	0.0005	0.0	0.0	0.1%	0.0%	
PCB-118	0.78	3.12	96.3	B	<5x*B	96.3	48.15	0.0001	0.0	0.0	0.9%	0.7%	
PCB-123	0.886	3.544		--	<5x*B	0.443		0.0001	0.0		0.0%	0.0%	
PCB-126	0.0824	0.3296	3.14	--		3.14	3.14	0.1	0.3	0.3	29.7%	45.4%	
PCB-156	0.329	1.316	20.4	--		20.4	20.4	0.0005	0.0	0.0	1.0%	1.5%	
PCB-157	0.34	1.36	5	B	<5x*B	5	2.5	0.0005	0.0	0.0	0.2%	0.2%	
PCB-167	0.335	1.34	11	--		11	11	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.402	1.608		E		0.201		0.01	0.0		0.2%	0.0%	
PCB-189	0.312	1.248	4.11	--		4.11	4.11	0.0001	0.0	0.0	0.0%	0.1%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.7	0.4	0.3	0.3	1.1	0.7

Sample ID	187	Field		S19								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0312	0.1248	0.294	NJ		0.147		0.1	0.0		0.7%	0.0%
2,3,7,8-TCDD	0.0178	0.0712		--		0.0089		1	0.0		0.4%	0.0%
1,2,3,7,8-PeCDF	0.623	2.492		E		0.3115		0.05	0.0		0.8%	0.0%
2,3,4,7,8-PeCDF	0.044	0.176	0.493	--		0.493	0.493	0.5	0.2	0.2	12.1%	12.6%
1,2,3,7,8-PeCDD	0.0219	0.0876	0.375	--		0.375	0.375	1	0.4	0.4	18.4%	19.2%
1,2,3,4,7,8-HxCDF	0.0534	0.2136	0.983	--		0.983	0.983	0.1	0.1	0.1	4.8%	5.0%
1,2,3,6,7,8-HxCDF	0.0468	0.1872	0.67	--		0.67	0.67	0.1	0.1	0.1	3.3%	3.4%
2,3,4,6,7,8-HxCDF	0.052	0.208	0.652	--		0.652	0.652	0.1	0.1	0.1	3.2%	3.3%
1,2,3,7,8,9-HxCDF	0.0581	0.2324	0.5	B	<5x*B	0.5	0.25	0.1	0.1	0.0	2.5%	1.3%
1,2,3,4,7,8-HxCDD	0.368	1.472		E		0.184		0.1	0.0		0.9%	0.0%
1,2,3,6,7,8-HxCDD	0.0145	0.058	0.533	--		0.533	0.533	0.1	0.1	0.1	2.6%	2.7%
1,2,3,7,8,9-HxCDD	0.0157	0.0628	0.628	--		0.628	0.628	0.1	0.1	0.1	3.1%	3.2%
1,2,3,4,6,7,8-HpCDF	0.0161	0.0644	4.61	--		4.61	4.61	0.01	0.0	0.0	2.3%	2.4%
1,2,3,4,7,8,9-HpCDF	0.0204	0.0816	1.05	--		1.05	1.05	0.01	0.0	0.0	0.5%	0.5%
1,2,3,4,6,7,8-HpCDD	0.049	0.196	13.2	--		13.2	13.2	0.01	0.1	0.1	6.5%	6.8%
OCDF	0.0161	0.0644	19	--		19	19	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.00776	0.0310	97.6	--		97.6	97.6	0.0001	0.0	0.0	0.5%	0.5%
PCB-77	0.0698	0.2792	29.5	--		29.5	29.5	0.0001	0.0	0.0	0.1%	0.2%
PCB-81	0.0725	0.29	1.13	B	<5x*B	1.13	0.565	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	3.06	12.24	183	--		183	183	0.0001	0.0	0.0	0.9%	0.9%
PCB-114	3.04	12.16	7.94	--		7.94	3.97	0.0005	0.0	0.0	0.2%	0.1%
PCB-118	2.62	10.48	354	--		354	354	0.0001	0.0	0.0	1.7%	1.8%
PCB-123	2.95	11.8	8.28	J		8.28	2.07	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.0986	0.3944	6.5	--		6.5	6.5	0.1	0.7	0.7	31.9%	33.3%
PCB-156	0.436	1.744	64.2	--		64.2	64.2	0.0005	0.0	0.0	1.6%	1.6%
PCB-157	0.459	1.836	15.8	--		15.8	15.8	0.0005	0.0	0.0	0.4%	0.4%
PCB-167	0.423	1.692	28.2	J		28.2	14.1	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0454	0.1816	0.774	--		0.774	0.774	0.01	0.0	0.0	0.4%	0.4%
PCB-189	0.0926	0.3704	9.31	--		9.31	9.31	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.3	1.2	0.8	0.8	2.0	2.0

## APPENDIX A1. Field Results

FINAL

Sample ID	429	Field		S2								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.374	1.496	1.23	NJ		0.615		0.1	0.1		0.7%	0.0%
2,3,7,8-TCDD	0.0718	0.2872	1.38	--		1.38	1.38	1	1.4	1.4	16.6%	17.0%
1,2,3,7,8-PeCDF	0.0246	0.0984	5.15	--		5.15	5.15	0.05	0.3	0.3	3.1%	3.2%
2,3,4,7,8-PeCDF	0.02	0.08	1.53	--		1.53	1.53	0.5	0.8	0.8	9.2%	9.4%
1,2,3,7,8-PeCDD	0.0105	0.042	0.799	--		0.799	0.799	1	0.8	0.8	9.6%	9.8%
1,2,3,4,7,8-HxCDF	0.0449	0.1796	9.3	--		9.3	9.3	0.1	0.9	0.9	11.2%	11.5%
1,2,3,6,7,8-HxCDF	0.0386	0.1544	4.46	--		4.46	4.46	0.1	0.4	0.4	5.3%	5.5%
2,3,4,6,7,8-HxCDF	0.047	0.188	2.22	--		2.22	2.22	0.1	0.2	0.2	2.7%	2.7%
1,2,3,7,8,9-HxCDF	0.0501	0.2004	2.14	B	<5x*B	2.14	1.07	0.1	0.2	0.1	2.6%	1.3%
1,2,3,4,7,8-HxCDD	0.0348	0.1392	1.38	--		1.38	1.38	0.1	0.1	0.1	1.7%	1.7%
1,2,3,6,7,8-HxCDD	0.0312	0.1248	3.04	--		3.04	3.04	0.1	0.3	0.3	3.6%	3.7%
1,2,3,7,8,9-HxCDD	0.0341	0.1364	2.51	--		2.51	2.51	0.1	0.3	0.3	3.0%	3.1%
1,2,3,4,6,7,8-HpCDF	0.0217	0.0868	38.8	--		38.8	38.8	0.01	0.4	0.4	4.7%	4.8%
1,2,3,4,7,8,9-HpCDF	0.0282	0.1128	9.37	--		9.37	9.37	0.01	0.1	0.1	1.1%	1.2%
1,2,3,4,6,7,8-HpCDD	0.0583	0.2332	84.2	--		84.2	84.2	0.01	0.8	0.8	10.1%	10.4%
OCDF	0.0222	0.0888	152	--		152	152	0.0001	0.0	0.0	0.2%	0.2%
OCDD	0.0229	0.0916	785	--		785	785	0.0001	0.1	0.1	0.9%	1.0%
PCB-77	0.0878	0.3512	40.7	--		40.7	40.7	0.0001	0.0	0.0	0.0%	0.1%
PCB-81	0.082	0.328	1.64	B	<5x*B	1.64	0.82	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.553	2.212	462	--		462	462	0.0001	0.0	0.0	0.6%	0.6%
PCB-114	0.55	2.2	23.7	--		23.7	23.7	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.471	1.884	1010	CJ		1010	505	0.0001	0.1	0.1	1.2%	0.6%
PCB-123	0.529	2.116	--		0.2645			0.0001	0.0		0.0%	0.0%
PCB-126	1.03	4.12	8.85	--		8.85	8.85	0.1	0.9	0.9	10.6%	10.9%
PCB-156	0.44	1.76	143	--		143	143	0.0005	0.1	0.1	0.9%	0.9%
PCB-157	0.464	1.856	36.2	--		36.2	36.2	0.0005	0.0	0.0	0.2%	0.2%
PCB-167	0.427	1.708	58.7	--		58.7	58.7	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0483	0.1932	1.24	--		1.24	1.24	0.01	0.0	0.0	0.1%	0.2%
PCB-189	0.298	1.192	13.8	--		13.8	13.8	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
7.2	7.0	1.2	1.1	8.3	8.1

Sample ID	291	Field		S20								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.08	0.32	0.131	NJ		0.0655		0.1	0.0		0.7%	0.0%
2,3,7,8-TCDD	0.0489	0.1956		--		0.02445		1	0.0		2.8%	0.0%
1,2,3,7,8-PeCDF	0.0355	0.142	0.21	--		0.21	0.21	0.05	0.0	0.0	1.2%	1.9%
2,3,4,7,8-PeCDF	0.189	0.756		E		0.0945		0.5	0.0		5.4%	0.0%
1,2,3,7,8-PeCDD	0.383	1.532		E		0.1915		1	0.2		21.7%	0.0%
1,2,3,4,7,8-HxCDF	0.0437	0.1748	0.527	--		0.527	0.527	0.1	0.1	0.1	6.0%	9.5%
1,2,3,6,7,8-HxCDF	0.0373	0.1492	0.434	--		0.434	0.434	0.1	0.0	0.0	4.9%	7.8%
2,3,4,6,7,8-HxCDF	0.0411	0.1644	0.349	B	<5x*B	0.349	0.1745	0.1	0.0	0.0	4.0%	3.1%
1,2,3,7,8,9-HxCDF	0.0464	0.1856	0.422	B	<5x*B	0.422	0.211	0.1	0.0	0.0	4.8%	3.8%
1,2,3,4,7,8-HxCDD	0.176	0.704		E		0.088		0.1	0.0		1.0%	0.0%
1,2,3,6,7,8-HxCDD	0.0341	0.1364	0.492	--		0.492	0.492	0.1	0.0	0.0	5.6%	8.9%
1,2,3,7,8,9-HxCDD	0.037	0.148	0.6	--		0.6	0.6	0.1	0.1	0.1	6.8%	10.8%
1,2,3,4,6,7,8-HpCDF	0.0265	0.106	3.79	--		3.79	3.79	0.01	0.0	0.0	4.3%	6.8%
1,2,3,4,7,8,9-HpCDF	0.0374	0.1496	0.957	--		0.957	0.957	0.01	0.0	0.0	1.1%	1.7%
1,2,3,4,6,7,8-HpCDD	0.0223	0.0892	5.42	--		5.42	5.42	0.01	0.1	0.1	6.1%	9.8%
OCDF	0.0127	0.0508	20.6	--		20.6	20.6	0.0001	0.0	0.0	0.2%	0.4%
OCDD	0.0254	0.1016	41	--		41	41	0.0001	0.0	0.0	0.5%	0.7%
PCB-77	0.296	1.184	6.95	B	<5x*B	6.95	3.475	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.337	1.348	1.05	B	<5x*B	1.05	0.2625	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.991	3.964	36	B	<5x*B	36	18	0.0001	0.0	0.0	0.4%	0.3%
PCB-114	0.984	3.936	1.16	--		1.16	0.58	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.824	3.296	84.9	B	<5x*B	84.9	42.45	0.0001	0.0	0.0	1.0%	0.8%
PCB-123	0.927	3.708	2.43	BJ	<5x*B	2.43	0.6075	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.154	0.616	1.79	--		1.79	1.79	0.1	0.2	0.2	20.3%	32.3%
PCB-156	0.137	0.548	11.9	B	<5x*B	11.9	5.95	0.0005	0.0	0.0	0.7%	0.5%
PCB-157	4.52	18.08		E	<5x*B	2.26		0.0005	0.0		0.1%	0.0%
PCB-167	0.133	0.532	6.18	BJ	<5x*B	6.18	3.09	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0798	0.3192	0.361	--		0.361	0.361	0.01	0.0	0.0	0.4%	0.7%
PCB-189	1.77	7.08		E		0.885		0.0001	0.0		0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.7	0.4	0.2	0.2	0.9	0.6

## APPENDIX A1. Field Results

FINAL

Sample ID	644	Field		S22								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.04	0.16	0.202	NJ		0.101		0.1	0.0		0.9%	0.0%
2,3,7,8-TCDD	0.00136	0.0054		--	0.00068			1	0.0		0.1%	0.0%
1,2,3,7,8-PeCDF	0.249	0.996		E		0.1245		0.05	0.0		0.6%	0.0%
2,3,4,7,8-PeCDF	0.0126	0.0504	0.327	--		0.327	0.327	0.5	0.2	0.2	15.2%	20.3%
1,2,3,7,8-PeCDD	0.276	1.104		E		0.138		1	0.1		12.9%	0.0%
1,2,3,4,7,8-HxCDF	0.0258	0.1032	0.4	B	<5x*B	0.4	0.2	0.1	0.0	0.0	3.7%	2.5%
1,2,3,6,7,8-HxCDF	0.0216	0.0864	0.411	--		0.411	0.411	0.1	0.0	0.0	3.8%	5.1%
2,3,4,6,7,8-HxCDF	0.0246	0.0984	0.306	B	<5x*B	0.306	0.153	0.1	0.0	0.0	2.9%	1.9%
1,2,3,7,8,9-HxCDF	0.391	1.564		E	<5x*B	0.1955		0.1	0.0		1.8%	0.0%
1,2,3,4,7,8-HxCDD	0.011	0.044	0.283	--		0.283	0.283	0.1	0.0	0.0	2.6%	3.5%
1,2,3,6,7,8-HxCDD	0.768	3.072		E		0.384		0.1	0.0		3.6%	0.0%
1,2,3,7,8,9-HxCDD	0.0109	0.0436	1.02	--		1.02	1.02	0.1	0.1	0.1	9.5%	12.7%
1,2,3,4,6,7,8-HpCDF	0.0482	0.1928	2.29	--		2.29	2.29	0.01	0.0	0.0	2.1%	2.8%
1,2,3,4,7,8,9-HpCDF	0.377	1.508		E		0.1885		0.01	0.0		0.2%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0164	0.0656	8.12	--		8.12	8.12	0.01	0.1	0.1	7.6%	10.1%
OCDF	0.0102	0.0408	6.28	--		6.28	6.28	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.00731	0.0292	61.2	--		61.2	61.2	0.0001	0.0	0.0	0.6%	0.8%
PCB-77	0.192	0.768	12.9	B	<5x*B	12.9	6.45	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.213	0.852	0.859	B	<5x*B	0.859	0.4295	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.652	2.608	52.8	B	<5x*B	52.8	26.4	0.0001	0.0	0.0	0.5%	0.3%
PCB-114	0.648	2.592	2.41	--		2.41	1.205	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.651	2.604	123	B	<5x*B	123	61.5	0.0001	0.0	0.0	1.2%	0.8%
PCB-123	0.732	2.928	2.83	BJ	<5x*B	2.83	0.7075	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.15	0.6	3.05	--		3.05	3.05	0.1	0.3	0.3	28.4%	37.8%
PCB-156	0.066	0.264	18.4	B	<5x*B	18.4	9.2	0.0005	0.0	0.0	0.9%	0.6%
PCB-157	0.0696	0.2784	5.3	B	<5x*B	5.3	2.65	0.0005	0.0	0.0	0.3%	0.2%
PCB-167	0.0641	0.2564	9.9	J		9.9	4.95	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0449	0.1796	0.409	--		0.409	0.409	0.01	0.0	0.0	0.4%	0.5%
PCB-189	0.00751	0.0300	2.18	--		2.18	2.18	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.7	0.5	0.3	0.3	1.1	0.8

Sample ID	521	Field		S23								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0539	0.2156	--		0.02695		0.1	0.0			0.6%	0.0%
2,3,7,8-TCDD	0.0178	0.0712	--		0.0089		1	0.0			1.9%	0.0%
1,2,3,7,8-PeCDF	0.144	0.576	E		0.072		0.05	0.0			0.8%	0.0%
2,3,4,7,8-PeCDF	0.012	0.048	--		0.006		0.5	0.0			0.7%	0.0%
1,2,3,7,8-PeCDD	0.0254	0.1016	--		0.0127		1	0.0			2.8%	0.0%
1,2,3,4,7,8-HxCDF	0.0318	0.1272	0.138	B	<5x*B	0.138	0.069	0.1	0.0	0.0	3.0%	2.4%
1,2,3,6,7,8-HxCDF	0.0286	0.1144	0.265	--		0.265	0.265	0.1	0.0	0.0	5.8%	9.3%
2,3,4,6,7,8-HxCDF	0.033	0.132	--	<5x*B	0.0165		0.1	0.0			0.4%	0.0%
1,2,3,7,8,9-HxCDF	0.04	0.16	0.378	B	<5x*B	0.378	0.189	0.1	0.0	0.0	8.2%	6.6%
1,2,3,4,7,8-HxCDD	0.2	0.8	E		0.1		0.1	0.0			2.2%	0.0%
1,2,3,6,7,8-HxCDD	0.986	3.944	E		0.493		0.1	0.0			10.7%	0.0%
1,2,3,7,8,9-HxCDD	0.0107	0.0428	1.44	--	1.44	1.44	0.1	0.1	0.1	0.1	31.3%	50.4%
1,2,3,4,6,7,8-HpCDF	0.0317	0.1268	0.746	--	0.746	0.746	0.01	0.0	0.0	0.0	1.6%	2.6%
1,2,3,4,7,8,9-HpCDF	0.149	0.596	E		0.0745		0.01	0.0			0.2%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0174	0.0696	2.36	--	2.36	2.36	0.01	0.0	0.0	0.0	5.1%	8.3%
OCDF	0.0143	0.0572	2.11	B	<5x*B	2.11	1.055	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.0234	0.0936	16	--		16	16	0.0001	0.0	0.0	0.3%	0.6%
PCB-77	0.188	0.752	4.54	B	<5x*B	4.54	2.27	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.228	0.912	0.641	B	<5x*B	0.641	0.16025	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.333	1.332	23.8	B	<5x*B	23.8	11.9	0.0001	0.0	0.0	0.5%	0.4%
PCB-114	0.331	1.324	1.46	--		1.46	1.46	0.0005	0.0	0.0	0.2%	0.3%
PCB-118	0.288	1.152	54.6	B	<5x*B	54.6	27.3	0.0001	0.0	0.0	1.2%	1.0%
PCB-123	0.323	1.292	--	<5x*B	0.1615		0.0001	0.0			0.0%	0.0%
PCB-126	0.134	0.536	0.986	B	<5x*B	0.986	0.493	0.1	0.1	0.0	21.4%	17.2%
PCB-156	0.218	0.872	6.06	B	<5x*B	6.06	3.03	0.0005	0.0	0.0	0.7%	0.5%
PCB-157	1.98	7.92	E	<5x*B	0.99		0.0005	0.0			0.1%	0.0%
PCB-167	0.212	0.848	3.09	BJ	<5x*B	3.09	1.545	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.053	0.212	0.186	--		0.186	0.093	0.01	0.0	0.0	0.4%	0.3%
PCB-189	0.0488	0.1952	0.861	--		0.861	0.861	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.3	0.2	0.1	0.1	0.5	0.3

Sample ID	385	Field		S24								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0591	0.2364	0.289	NJ		0.1445		0.1	0.0		2.8%	0.0%
2,3,7,8-TCDD	0.0243	0.0972		--		0.01215		1	0.0		2.3%	0.0%
1,2,3,7,8-PeCDF	0.0272	0.1088	0.516	--		0.516	0.516	0.05	0.0	0.0	4.9%	7.5%
2,3,4,7,8-PeCDF	0.2	0.8		E		0.1		0.5	0.1		9.6%	0.0%
1,2,3,7,8-PeCDD	0.0214	0.0856		--		0.0107		1	0.0		2.0%	0.0%
1,2,3,4,7,8-HxCDF	0.0366	0.1464	0.379	B	<5x*B	0.379	0.1895	0.1	0.0	0.0	7.3%	5.5%
1,2,3,6,7,8-HxCDF	0.3	1.2		E		0.15		0.1	0.0		2.9%	0.0%
2,3,4,6,7,8-HxCDF	0.0358	0.1432	0.313	B	<5x*B	0.313	0.1565	0.1	0.0	0.0	6.0%	4.6%
1,2,3,7,8,9-HxCDF	0.325	1.3		E	<5x*B	0.1625		0.1	0.0		3.1%	0.0%
1,2,3,4,7,8-HxCDD	0.213	0.852		E		0.1065		0.1	0.0		2.0%	0.0%
1,2,3,6,7,8-HxCDD	0.0111	0.0444	0.259	--		0.259	0.259	0.1	0.0	0.0	5.0%	7.6%
1,2,3,7,8,9-HxCDD	0.012	0.048	0.329	--		0.329	0.329	0.1	0.0	0.0	6.3%	9.6%
1,2,3,4,6,7,8-HpCDF	0.0166	0.0664	1.38	--		1.38	1.38	0.01	0.0	0.0	2.6%	4.0%
1,2,3,4,7,8,9-HpCDF	0.0231	0.0924	0.371	--		0.371	0.371	0.01	0.0	0.0	0.7%	1.1%
1,2,3,4,6,7,8-HpCDD	0.016	0.064	4.12	--		4.12	4.12	0.01	0.0	0.0	7.9%	12.0%
OCDF	0.0188	0.0752	4.67	--		4.67	4.67	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.0116	0.0464	28.1	--		28.1	28.1	0.0001	0.0	0.0	0.5%	0.8%
PCB-77	0.131	0.524	5.98	B	<5x*B	5.98	2.99	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.147	0.588	0.704	B	<5x*B	0.704	0.352	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.956	3.824	53.7	B	<5x*B	53.7	26.85	0.0001	0.0	0.0	1.0%	0.8%
PCB-114	2.14	8.56		E		1.07		0.0005	0.0		0.1%	0.0%
PCB-118	0.818	3.272	122	B	<5x*B	122	61	0.0001	0.0	0.0	2.3%	1.8%
PCB-123	0.92	3.68		--	<5x*B	0.46		0.0001	0.0		0.0%	0.0%
PCB-126	0.11	0.44	1.46	--		1.46	1.46	0.1	0.1	0.1	27.9%	42.6%
PCB-156	0.212	0.848	16.8	B	<5x*B	16.8	8.4	0.0005	0.0	0.0	1.6%	1.2%
PCB-157	0.224	0.896	4.27	B	<5x*B	4.27	2.135	0.0005	0.0	0.0	0.4%	0.3%
PCB-167	0.206	0.824	7.18	BJ	<5x*B	7.18	3.59	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0544	0.2176	0.192	--		0.192	0.096	0.01	0.0	0.0	0.4%	0.3%
PCB-189	0.287	1.148	2.55	--		2.55	2.55	0.0001	0.0	0.0	0.0%	0.1%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.3	0.2	0.2	0.2	0.5	0.3

Sample ID	847	Field		S25								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0169	0.0676	0.384	NJ		0.192		0.1	0.0		10.9%	0.0%
2,3,7,8-TCDD	0.00563	0.0225		--		0.002815		1	0.0		1.6%	0.0%
1,2,3,7,8-PeCDF	0.428	1.712		E		0.214		0.05	0.0		6.1%	0.0%
2,3,4,7,8-PeCDF	0.193	0.772		E		0.0965		0.5	0.0		27.4%	0.0%
1,2,3,7,8-PeCDD	0.00418	0.0167		--		0.00209		1	0.0		1.2%	0.0%
1,2,3,4,7,8-HxCDF	0.167	0.668		E		0.0835		0.1	0.0		4.8%	0.0%
1,2,3,6,7,8-HxCDF	0.175	0.7		E	<5x*B	0.0875		0.1	0.0		5.0%	0.0%
2,3,4,6,7,8-HxCDF	0.0534	0.2136		--		0.0267		0.1	0.0		1.5%	0.0%
1,2,3,7,8,9-HxCDF	0.323	1.292		E		0.1615		0.1	0.0		9.2%	0.0%
1,2,3,4,7,8-HxCDD	0.00325	0.013		--		0.001625		0.1	0.0		0.1%	0.0%
1,2,3,6,7,8-HxCDD	0.00275	0.011		--		0.001375		0.1	0.0		0.1%	0.0%
1,2,3,7,8,9-HxCDD	0.00306	0.0122		J		0.00153		0.1	0.0		0.1%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0606	0.2424	0.417	B	<5x*B	0.417	0.2085	0.01	0.0	0.0	2.4%	9.3%
1,2,3,4,7,8,9-HpCDF	0.125	0.5		--		0.0625		0.01	0.0		0.4%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0375	0.15	1.37	--		1.37	1.37	0.01	0.0	0.0	7.8%	61.3%
OCDF	0.0765	0.306	1.02	--		1.02	1.02	0.0001	0.0	0.0	0.1%	0.5%
OCDD	0.0656	0.2624	10.3	--		10.3	10.3	0.0001	0.0	0.0	0.6%	4.6%
PCB-77	0.0349	0.1396	3.67	B	<5x*B	3.67	1.835	0.0001	0.0	0.0	0.2%	0.8%
PCB-81	0.0471	0.1884	0.561	B	<5x*B	0.561	0.2805	0.0001	0.0	0.0	0.0%	0.1%
PCB-105	0.449	1.796	18.8	B	<5x*B	18.8	9.4	0.0001	0.0	0.0	1.1%	4.2%
PCB-114	1.17	4.68		E	<5x*B	0.585		0.0005	0.0		0.2%	0.0%
PCB-118	0.479	1.916	42.2	B	<5x*B	42.2	21.1	0.0001	0.0	0.0	2.4%	9.4%
PCB-123	0.545	2.18		--	<5x*B	0.2725		0.0001	0.0		0.0%	0.0%
PCB-126	0.5	2		E		0.25		0.1	0.0		14.2%	0.0%
PCB-156	0.189	0.756	6.7	B	<5x*B	6.7	3.35	0.0005	0.0	0.0	1.9%	7.5%
PCB-157	0.195	0.78	1.79	B	<5x*B	1.79	0.895	0.0005	0.0	0.0	0.5%	2.0%
PCB-167	0.192	0.768	3.05	B	<5x*B	3.05	1.525	0.00001	0.0	0.0	0.0%	0.1%
PCB-169	0.12	0.48		E		0.06		0.01	0.0		0.3%	0.0%
PCB-189	0.174	0.696	0.478	--		0.478	0.239	0.0001	0.0	0.0	0.0%	0.1%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.1	0.0	0.0	0.0	0.2	0.0

Sample ID	547	Field		S26								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0152	0.0608	0.184	NJ		0.092		0.1	0.0		0.9%	0.0%
2,3,7,8-TCDD	0.00255	0.0102		--		0.001275		1	0.0		0.1%	0.0%
1,2,3,7,8-PeCDF	0.0098	0.0392	1.17	--		1.17	1.17	0.05	0.1	0.1	5.5%	7.3%
2,3,4,7,8-PeCDF	0.00738	0.0295	0.231	--		0.231	0.231	0.5	0.1	0.1	10.9%	14.4%
1,2,3,7,8-PeCDD	0.00196	0.0078		--		0.00098		1	0.0		0.1%	0.0%
1,2,3,4,7,8-HxCDF	0.0212	0.0848	1.62	--		1.62	1.62	0.1	0.2	0.2	15.2%	20.3%
1,2,3,6,7,8-HxCDF	0.0182	0.0728	1.15	--		1.15	1.15	0.1	0.1	0.1	10.8%	14.4%
2,3,4,6,7,8-HxCDF	0.0201	0.0804	0.493	B	<5x*B	0.493	0.2465	0.1	0.0	0.0	4.6%	3.1%
1,2,3,7,8,9-HxCDF	0.0224	0.0896	0.728	B	<5x*B	0.728	0.364	0.1	0.1	0.0	6.8%	4.6%
1,2,3,4,7,8-HxCDD	0.225	0.9		E		0.1125		0.1	0.0		1.1%	0.0%
1,2,3,6,7,8-HxCDD	0.331	1.324		E		0.1655		0.1	0.0		1.6%	0.0%
1,2,3,7,8,9-HxCDD	0.274	1.096		E		0.137		0.1	0.0		1.3%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0244	0.0976	4.42	--		4.42	4.42	0.01	0.0	0.0	4.2%	5.5%
1,2,3,4,7,8,9-HpCDF	0.0295	0.118	2.15	--		2.15	2.15	0.01	0.0	0.0	2.0%	2.7%
1,2,3,4,6,7,8-HpCDD	0.00354	0.0142	6.53	--		6.53	6.53	0.01	0.1	0.1	6.1%	8.2%
OCDF	0.00593	0.0237	21	--		21	21	0.0001	0.0	0.0	0.2%	0.3%
OCDD	0.00107	0.0043	51.4	--		51.4	51.4	0.0001	0.0	0.0	0.5%	0.6%
PCB-77	0.0321	0.1284	9.12	B	<5x*B	9.12	4.56	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.0334	0.1336	0.6	B	<5x*B	0.6	0.3	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.172	0.688	58	B	<5x*B	58	29	0.0001	0.0	0.0	0.5%	0.4%
PCB-114	0.171	0.684	3.03	--		3.03	3.03	0.0005	0.0	0.0	0.1%	0.2%
PCB-118	0.156	0.624	122	B	<5x*B	122	61	0.0001	0.0	0.0	1.1%	0.8%
PCB-123	0.176	0.704	1.63	B	<5x*B	1.63	0.815	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.116	0.464	2.62	J		2.62	1.31	0.1	0.3	0.1	24.6%	16.4%
PCB-156	0.159	0.636	21.9	B	<5x*B	21.9	10.95	0.0005	0.0	0.0	1.0%	0.7%
PCB-157	0.168	0.672	5.79	B	<5x*B	5.79	2.895	0.0005	0.0	0.0	0.3%	0.2%
PCB-167	0.155	0.62	9.08	B	<5x*B	9.08	4.54	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.38	1.52		E		0.19		0.01	0.0		0.2%	0.0%
PCB-189	0.0748	0.2992	2.51	--		2.51	2.51	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.8	0.7	0.3	0.1	1.1	0.8

## APPENDIX A1. Field Results

FINAL

Sample ID	768	Field		S27								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0597	0.2388	--		0.02985		0.1	0.0			0.7%	0.0%
2,3,7,8-TCDD	0.00158	0.0063	--		0.00079		1	0.0			0.2%	0.0%
1,2,3,7,8-PeCDF	0.00904	0.0362	--		0.00452		0.05	0.0			0.1%	0.0%
2,3,4,7,8-PeCDF	0.0068	0.0272	--		0.0034		0.5	0.0			0.4%	0.0%
1,2,3,7,8-PeCDD	0.00284	0.0114	--		0.00142		1	0.0			0.3%	0.0%
1,2,3,4,7,8-HxCDF	0.0188	0.0752	0.141	B	<5x*B	0.141	0.0705	0.1	0.0	0.0	3.3%	2.5%
1,2,3,6,7,8-HxCDF	0.0166	0.0664	0.173	--		0.173	0.173	0.1	0.0	0.0	4.0%	6.1%
2,3,4,6,7,8-HxCDF	0.168	0.672	E	<5x*B	0.084		0.1	0.0			2.0%	0.0%
1,2,3,7,8,9-HxCDF	0.0211	0.0844	0.286	B	<5x*B	0.286	0.143	0.1	0.0	0.0	6.6%	5.0%
1,2,3,4,7,8-HxCDD	0.00085	0.0034	0.184	--		0.184	0.184	0.1	0.0	0.0	4.3%	6.5%
1,2,3,6,7,8-HxCDD	0.00088	0.0035	0.281	--		0.281	0.281	0.1	0.0	0.0	6.5%	9.9%
1,2,3,7,8,9-HxCDD	0.0009	0.0036	0.275	--		0.275	0.275	0.1	0.0	0.0	6.4%	9.7%
1,2,3,4,6,7,8-HpCDF	0.0203	0.0812	1.13	--		1.13	1.13	0.01	0.0	0.0	2.6%	4.0%
1,2,3,4,7,8,9-HpCDF	0.022	0.088	0.186	--		0.186	0.186	0.01	0.0	0.0	0.4%	0.7%
1,2,3,4,6,7,8-HpCDD	0.00617	0.0247	4.59	--		4.59	4.59	0.01	0.0	0.0	10.6%	16.1%
OCDF	0.00997	0.0399	2.81	--		2.81	2.81	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.00121	0.0048	33.9	--		33.9	33.9	0.0001	0.0	0.0	0.8%	1.2%
PCB-77	2.59	10.36	7.24	B	<5x*B	7.24	1.81	0.0001	0.0	0.0	0.2%	0.1%
PCB-81	2.65	10.6	--		<5x*B	1.325		0.0001	0.0		0.0%	0.0%
PCB-105	0.214	0.856	23.6	B	<5x*B	23.6	11.8	0.0001	0.0	0.0	0.6%	0.4%
PCB-114	0.213	0.852	1.22	--		1.22	1.22	0.0005	0.0	0.0	0.1%	0.2%
PCB-118	0.191	0.764	46.5	B	<5x*B	46.5	23.25	0.0001	0.0	0.0	1.1%	0.8%
PCB-123	0.215	0.86	--		<5x*B	0.1075		0.0001	0.0		0.0%	0.0%
PCB-126	0.0782	0.3128	2.02	J		2.02	1.01	0.1	0.2	0.1	46.8%	35.5%
PCB-156	0.165	0.66	11.2	B	<5x*B	11.2	5.6	0.0005	0.0	0.0	1.3%	1.0%
PCB-157	0.174	0.696	2.75	B	<5x*B	2.75	1.375	0.0005	0.0	0.0	0.3%	0.2%
PCB-167	0.161	0.644	3.77	B	<5x*B	3.77	1.885	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.293	1.172	E			0.1465		0.01	0.0		0.3%	0.0%
PCB-189	0.072	0.288	1.3	--		1.3	1.3	0.0001	0.0	0.0	0.0%	0.1%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.2	0.2	0.2	0.1	0.4	0.3

Sample ID	264	Field		S28								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0316	0.1264	0.442	NJ		0.221		0.1	0.0		0.8%	0.0%
2,3,7,8-TCDD	0.00193	0.0077	--		0.000965			1	0.0		0.0%	0.0%
1,2,3,7,8-PeCDF	0.0101	0.0404	0.535	--		0.535	0.535	0.05	0.0	0.0	1.0%	1.4%
2,3,4,7,8-PeCDF	0.00807	0.0323	0.799	--		0.799	0.799	0.5	0.4	0.4	14.5%	20.6%
1,2,3,7,8-PeCDD	0.404	1.616	--	E		0.202		1	0.2		7.4%	0.0%
1,2,3,4,7,8-HxCDF	0.0315	0.126	0.879	--		0.879	0.879	0.1	0.1	0.1	3.2%	4.5%
1,2,3,6,7,8-HxCDF	0.026	0.104	0.606	--		0.606	0.606	0.1	0.1	0.1	2.2%	3.1%
2,3,4,6,7,8-HxCDF	0.0296	0.1184	0.881	--		0.881	0.881	0.1	0.1	0.1	3.2%	4.5%
1,2,3,7,8,9-HxCDF	0.0322	0.1288	0.513	B	<5x*B	0.513	0.2565	0.1	0.1	0.0	1.9%	1.3%
1,2,3,4,7,8-HxCDD	0.00112	0.0045	0.618	--		0.618	0.618	0.1	0.1	0.1	2.2%	3.2%
1,2,3,6,7,8-HxCDD	0.00106	0.0042	0.92	--		0.92	0.92	0.1	0.1	0.1	3.3%	4.8%
1,2,3,7,8,9-HxCDD	0.00112	0.0045	0.974	--		0.974	0.974	0.1	0.1	0.1	3.5%	5.0%
1,2,3,4,6,7,8-HpCDF	0.0329	0.1316	6.34	--		6.34	6.34	0.01	0.1	0.1	2.3%	3.3%
1,2,3,4,7,8,9-HpCDF	0.0424	0.1696	0.885	--		0.885	0.885	0.01	0.0	0.0	0.3%	0.5%
1,2,3,4,6,7,8-HpCDD	0.0343	0.1372	23.3	--		23.3	23.3	0.01	0.2	0.2	8.5%	12.0%
OCDF	0.0091	0.0364	15.6	--		15.6	15.6	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.00688	0.0275	180	--		180	180	0.0001	0.0	0.0	0.7%	0.9%
PCB-77	0.0897	0.3588	59.1	--		59.1	59.1	0.0001	0.0	0.0	0.2%	0.3%
PCB-81	0.0956	0.3824	2.07	B	<5x*B	2.07	1.035	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.497	1.988	178	--		178	178	0.0001	0.0	0.0	0.6%	0.9%
PCB-114	0.494	1.976	6.82	--		6.82	6.82	0.0005	0.0	0.0	0.1%	0.2%
PCB-118	0.412	1.648	316	--		316	316	0.0001	0.0	0.0	1.2%	1.6%
PCB-123	0.463	1.852	--	<5x*B	0.2315			0.0001	0.0		0.0%	0.0%
PCB-126	0.06	0.24	11.2	J		11.2	5.6	0.1	1.1	0.6	40.8%	28.9%
PCB-156	0.402	1.608	64.8	--		64.8	64.8	0.0005	0.0	0.0	1.2%	1.7%
PCB-157	0.424	1.696	16	--		16	16	0.0005	0.0	0.0	0.3%	0.4%
PCB-167	0.39	1.56	24.2	--		24.2	24.2	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.00883	0.0353	1.17	--		1.17	1.17	0.01	0.0	0.0	0.4%	0.6%
PCB-189	0.331	1.324	8.26	--		8.26	8.26	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.5	1.3	1.2	0.7	2.7	1.9

## APPENDIX A1. Field Results

FINAL

Sample ID	443	Field		S29								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.154	0.616		E		0.077		0.1	0.0		1.8%	0.0%
2,3,7,8-TCDD	0.00467	0.0187		--		0.002335		1	0.0		0.5%	0.0%
1,2,3,7,8-PeCDF	0.27	1.08		E		0.135		0.05	0.0		1.6%	0.0%
2,3,4,7,8-PeCDF	0.0327	0.1308		--		0.01635		0.5	0.0		1.9%	0.0%
1,2,3,7,8-PeCDD	0.00807	0.0323		--		0.004035		1	0.0		0.9%	0.0%
1,2,3,4,7,8-HxCDF	0.0507	0.2028	0.466	--		0.466	0.466	0.1	0.0	0.0	10.7%	14.0%
1,2,3,6,7,8-HxCDF	0.429	1.716		E	<5x*B	0.2145		0.1	0.0		4.9%	0.0%
2,3,4,6,7,8-HxCDF	0.285	1.14		E		0.1425		0.1	0.0		3.3%	0.0%
1,2,3,7,8,9-HxCDF	0.0646	0.2584	0.499	--		0.499	0.499	0.1	0.0	0.0	11.5%	15.0%
1,2,3,4,7,8-HxCDD	0.00933	0.0373	0.289	--		0.289	0.289	0.1	0.0	0.0	6.7%	8.7%
1,2,3,6,7,8-HxCDD	0.00698	0.0279	0.36	--		0.36	0.36	0.1	0.0	0.0	8.3%	10.8%
1,2,3,7,8,9-HxCDD	0.271	1.084		EJ		0.1355		0.1	0.0		3.1%	0.0%
1,2,3,4,6,7,8-HpCDF	1.88	7.52		E	<5x*B	0.94		0.01	0.0		2.2%	0.0%
1,2,3,4,7,8,9-HpCDF	0.591	2.364		E		0.2955		0.01	0.0		0.7%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0515	0.206	4.27	--		4.27	4.27	0.01	0.0	0.0	9.8%	12.8%
OCDF	0.0373	0.1492	6.93	--		6.93	6.93	0.0001	0.0	0.0	0.2%	0.2%
OCDD	0.0416	0.1664	29.8	--		29.8	29.8	0.0001	0.0	0.0	0.7%	0.9%
PCB-77	0.0547	0.2188	6.53	B	<5x*B	6.53	3.265	0.0001	0.0	0.0	0.2%	0.1%
PCB-81	0.0599	0.2396	0.713	B	<5x*B	0.713	0.3565	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.465	1.86	31.6	B	<5x*B	31.6	15.8	0.0001	0.0	0.0	0.7%	0.5%
PCB-114	0.486	1.944	1.53	B	<5x*B	1.53	0.3825	0.0005	0.0	0.0	0.2%	0.1%
PCB-118	0.484	1.936	63.6	B	<5x*B	63.6	31.8	0.0001	0.0	0.0	1.5%	1.0%
PCB-123	0.55	2.2	1.93	B	<5x*B	1.93	0.4825	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.0634	0.2536	1.16	--		1.16	1.16	0.1	0.1	0.1	26.7%	34.8%
PCB-156	0.323	1.292	9.14	B	<5x*B	9.14	4.57	0.0005	0.0	0.0	1.1%	0.7%
PCB-157	0.334	1.336	2.67	B	<5x*B	2.67	1.335	0.0005	0.0	0.0	0.3%	0.2%
PCB-167	0.328	1.312	5	B	<5x*B	5	2.5	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0504	0.2016	0.239	J		0.239	0.1195	0.01	0.0	0.0	0.6%	0.4%
PCB-189	0.16	0.64	1.19	--		1.19	1.19	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.3	0.2	0.1	0.1	0.4	0.3

## APPENDIX A1. Field Results

FINAL

Sample ID	641	Field		S3								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.094	0.376	--		0.047		0.1	0.0			0.5%	0.0%
2,3,7,8-TCDD	0.00649	0.026	--		0.003245		1	0.0			0.3%	0.0%
1,2,3,7,8-PeCDF	0.0224	0.0896	0.65	--	0.65	0.65	0.05	0.0	0.0	0.0	3.2%	4.2%
2,3,4,7,8-PeCDF	0.0176	0.0704	0.355	--	0.355	0.355	0.5	0.2	0.2	0.2	17.7%	22.9%
1,2,3,7,8-PeCDD	0.00863	0.0345	--		0.004315		1	0.0			0.4%	0.0%
1,2,3,4,7,8-HxCDF	0.0822	0.3288	0.972	--	0.972	0.972	0.1	0.1	0.1	0.1	9.7%	12.6%
1,2,3,6,7,8-HxCDF	0.0763	0.3052	0.603	I	0.603	0.603	0.1	0.1	0.1	0.1	6.0%	7.8%
2,3,4,6,7,8-HxCDF	0.14	0.56	--	<5x*B	0.07		0.1	0.0			0.7%	0.0%
1,2,3,7,8,9-HxCDF	0.233	0.932	0.502	B	<5x*B	0.502	0.1255	0.1	0.1	0.0	5.0%	1.6%
1,2,3,4,7,8-HxCDD	0.0319	0.1276	0.324	--	0.324	0.324	0.1	0.0	0.0	0.0	3.2%	4.2%
1,2,3,6,7,8-HxCDD	0.035	0.14	0.328	--	0.328	0.328	0.1	0.0	0.0	0.0	3.3%	4.2%
1,2,3,7,8,9-HxCDD	0.0349	0.1396	--		0.01745		0.1	0.0			0.2%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0489	0.1956	4.48	--	4.48	4.48	0.01	0.0	0.0	0.0	4.5%	5.8%
1,2,3,4,7,8,9-HpCDF	0.0939	0.3756	1.76	--	1.76	1.76	0.01	0.0	0.0	0.0	1.8%	2.3%
1,2,3,4,6,7,8-HpCDD	0.119	0.476	8.09	--	8.09	8.09	0.01	0.1	0.1	0.1	8.1%	10.4%
OCDF	0.0481	0.1924	26.4	--	26.4	26.4	0.0001	0.0	0.0	0.0	0.3%	0.3%
OCDD	0.0923	0.3692	63.4	--	63.4	63.4	0.0001	0.0	0.0	0.0	0.6%	0.8%
PCB-77	0.333	1.332	13.3	B	<5x*B	13.3	6.65	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.353	1.412	0.983	B	<5x*B	0.983	0.24575	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.497	1.988	59.3	B	<5x*B	59.3	29.65	0.0001	0.0	0.0	0.6%	0.4%
PCB-114	0.493	1.972	2.42	--	2.42	2.42	0.0005	0.0	0.0	0.0	0.1%	0.2%
PCB-118	0.42	1.68	115	B	<5x*B	115	57.5	0.0001	0.0	0.0	1.1%	0.7%
PCB-123	0.473	1.892	4.82	B	<5x*B	4.82	2.41	0.0001	0.0	0.0	0.1%	0.0%
PCB-126	0.0819	0.3276	3.11	J	3.11	1.555	0.1	0.3	0.2	0.2	30.9%	20.1%
PCB-156	0.168	0.672	21.1	B	<5x*B	21.1	10.55	0.0005	0.0	0.0	1.1%	0.7%
PCB-157	0.177	0.708	5.48	B	<5x*B	5.48	2.74	0.0005	0.0	0.0	0.3%	0.2%
PCB-167	0.163	0.652	8.05	B	<5x*B	8.05	4.025	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0289	0.1156	0.391	--	0.391	0.391	0.01	0.0	0.0	0.0	0.4%	0.5%
PCB-189	0.139	0.556	2.12	--	2.12	2.12	0.0001	0.0	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.7	0.6	0.3	0.2	1.0	0.8

## APPENDIX A1. Field Results

FINAL

Sample ID	736	Field		S30									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.175	0.7		E		0.0875		0.1	0.0		1.3%	0.0%	
2,3,7,8-TCDD	0.00344	0.0138		--		0.00172		1	0.0		0.3%	0.0%	
1,2,3,7,8-PeCDF	0.0552	0.2208	0.335	--		0.335	0.335	0.05	0.0	0.0	2.5%	4.4%	
2,3,4,7,8-PeCDF	0.0365	0.146	0.185	--		0.185	0.185	0.5	0.1	0.1	13.7%	24.2%	
1,2,3,7,8-PeCDD	0.364	1.456		E		0.182		1	0.2		27.0%	0.0%	
1,2,3,4,7,8-HxCDF	0.436	1.744		E		0.218		0.1	0.0		3.2%	0.0%	
1,2,3,6,7,8-HxCDF	0.0231	0.0924	0.311	B	<5x*B	0.311	0.1555	0.1	0.0	0.0	4.6%	4.1%	
2,3,4,6,7,8-HxCDF	0.263	1.052		E		0.1315		0.1	0.0		2.0%	0.0%	
1,2,3,7,8,9-HxCDF	0.0552	0.2208	0.495	--		0.495	0.495	0.1	0.0	0.0	7.4%	12.9%	
1,2,3,4,7,8-HxCDD	0.0232	0.0928	0.171	--		0.171	0.171	0.1	0.0	0.0	2.5%	4.5%	
1,2,3,6,7,8-HxCDD	0.322	1.288		E		0.161		0.1	0.0		2.4%	0.0%	
1,2,3,7,8,9-HxCDD	0.215	0.86		EJ		0.1075		0.1	0.0		1.6%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.0249	0.0996	1.85	B	<5x*B	1.85	0.925	0.01	0.0	0.0	2.8%	2.4%	
1,2,3,4,7,8,9-HpCDF	0.543	2.172		E		0.2715		0.01	0.0		0.4%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.0242	0.0968	3.81	--		3.81	3.81	0.01	0.0	0.0	5.7%	10.0%	
OCDF	0.0287	0.1148	6.58	--		6.58	6.58	0.0001	0.0	0.0	0.1%	0.2%	
OCDD	0.0317	0.1268	25.5	--		25.5	25.5	0.0001	0.0	0.0	0.4%	0.7%	
PCB-77	0.0664	0.2656	6.17	B	<5x*B	6.17	3.085	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	0.0692	0.2768	0.612	B	<5x*B	0.612	0.306	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.647	2.588	21	B	<5x*B	21	10.5	0.0001	0.0	0.0	0.3%	0.3%	
PCB-114	0.676	2.704	1.26	B	<5x*B	1.26	0.315	0.0005	0.0	0.0	0.1%	0.0%	
PCB-118	0.79	3.16	51.4	B	<5x*B	51.4	25.7	0.0001	0.0	0.0	0.8%	0.7%	
PCB-123	0.898	3.592	1.4	B	<5x*B	1.4	0.35	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.097	0.388	1.33	--		1.33	1.33	0.1	0.1	0.1	19.8%	34.7%	
PCB-156	0.278	1.112	7.54	B	<5x*B	7.54	3.77	0.0005	0.0	0.0	0.6%	0.5%	
PCB-157	0.288	1.152	2.31	B	<5x*B	2.31	1.155	0.0005	0.0	0.0	0.2%	0.2%	
PCB-167	0.283	1.132	4.53	B	<5x*B	4.53	2.265	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0244	0.0976	0.247	J		0.247	0.1235	0.01	0.0	0.0	0.4%	0.3%	
PCB-189	0.143	0.572	1.25	--		1.25	1.25	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.5	0.2	0.1	0.1	0.7	0.4

**APPENDIX A1. Field Results****FINAL**

Sample ID	616	Field		S31									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0726	0.2904	0.502	NJ		0.251		0.1	0.0		1.1%	0.0%	
2,3,7,8-TCDD	0.00242	0.0097	--		0.00121			1	0.0		0.1%	0.0%	
1,2,3,7,8-PeCDF	0.021	0.084	3.29	--		3.29	3.29	0.05	0.2	0.2	7.0%	8.1%	
2,3,4,7,8-PeCDF	0.492	1.968	--	E		0.246		0.5	0.1		5.3%	0.0%	
1,2,3,7,8-PeCDD	0.217	0.868	--	E		0.1085		1	0.1		4.6%	0.0%	
1,2,3,4,7,8-HxCDF	0.0439	0.1756	5.02	--		5.02	5.02	0.1	0.5	0.5	21.4%	24.6%	
1,2,3,6,7,8-HxCDF	0.0396	0.1584	2.91	--		2.91	2.91	0.1	0.3	0.3	12.4%	14.2%	
2,3,4,6,7,8-HxCDF	0.0486	0.1944	1.64	--		1.64	1.64	0.1	0.2	0.2	7.0%	8.0%	
1,2,3,7,8,9-HxCDF	0.0587	0.2348	1.51	--		1.51	1.51	0.1	0.2	0.2	6.4%	7.4%	
1,2,3,4,7,8-HxCDD	0.411	1.644	--	E		0.2055		0.1	0.0		0.9%	0.0%	
1,2,3,6,7,8-HxCDD	0.0137	0.0548	0.44	--		0.44	0.44	0.1	0.0	0.0	1.9%	2.2%	
1,2,3,7,8,9-HxCDD	0.0151	0.0604	0.387	J		0.387	0.1935	0.1	0.0	0.0	1.7%	1.0%	
1,2,3,4,6,7,8-HpCDF	0.0336	0.1344	16.6	--		16.6	16.6	0.01	0.2	0.2	7.1%	8.1%	
1,2,3,4,7,8,9-HpCDF	0.0486	0.1944	6.15	--		6.15	6.15	0.01	0.1	0.1	2.6%	3.0%	
1,2,3,4,6,7,8-HpCDD	0.02	0.08	7.73	--		7.73	7.73	0.01	0.1	0.1	3.3%	3.8%	
OCDF	0.0138	0.0552	91.2	--		91.2	91.2	0.0001	0.0	0.0	0.4%	0.5%	
OCDD	0.0229	0.0916	51.7	--		51.7	51.7	0.0001	0.0	0.0	0.2%	0.3%	
PCB-77	0.0175	0.07	14.2	--		14.2	14.2	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	0.0211	0.0844	0.851	B	<5x*B	0.851	0.4255	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.756	3.024	159	--		159	159	0.0001	0.0	0.0	0.7%	0.8%	
PCB-114	0.79	3.16	7.54	--		7.54	7.54	0.0005	0.0	0.0	0.2%	0.2%	
PCB-118	0.809	3.236	352	--		352	352	0.0001	0.0	0.0	1.5%	1.7%	
PCB-123	0.92	3.68	6.83	--		6.83	6.83	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.122	0.488	3.02	--		3.02	3.02	0.1	0.3	0.3	12.9%	14.8%	
PCB-156	0.315	1.26	43.9	--		43.9	43.9	0.0005	0.0	0.0	0.9%	1.1%	
PCB-157	0.326	1.304	11.6	--		11.6	11.6	0.0005	0.0	0.0	0.3%	0.3%	
PCB-167	0.32	1.28	19.1	--		19.1	19.1	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0376	0.1504	0.435	J		0.435	0.2175	0.01	0.0	0.0	0.2%	0.1%	
PCB-189	0.185	0.74	3.44	--		3.44	3.44	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
2.0	1.7	0.4	0.4	2.3	2.0

## APPENDIX A1. Field Results

FINAL

Sample ID	945	Field		S32								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.208	0.832		E		0.104		0.1	0.0		1.0%	0.0%
2,3,7,8-TCDD	0.0045	0.018		--		0.00225		1	0.0		0.2%	0.0%
1,2,3,7,8-PeCDF	0.0201	0.0804	0.474	--		0.474	0.474	0.05	0.0	0.0	2.3%	3.1%
2,3,4,7,8-PeCDF	0.0125	0.05	0.21	--		0.21	0.21	0.5	0.1	0.1	10.0%	13.8%
1,2,3,7,8-PeCDD	0.37	1.48		E		0.185		1	0.2		17.7%	0.0%
1,2,3,4,7,8-HxCDF	0.0191	0.0764	0.594	--		0.594	0.594	0.1	0.1	0.1	5.7%	7.8%
1,2,3,6,7,8-HxCDF	0.0184	0.0736	0.505	B	<5x*B	0.505	0.2525	0.1	0.1	0.0	4.8%	3.3%
2,3,4,6,7,8-HxCDF	0.0193	0.0772	0.414	--		0.414	0.414	0.1	0.0	0.0	4.0%	5.4%
1,2,3,7,8,9-HxCDF	0.0228	0.0912	0.566	--		0.566	0.566	0.1	0.1	0.1	5.4%	7.4%
1,2,3,4,7,8-HxCDD	0.366	1.464		E		0.183		0.1	0.0		1.8%	0.0%
1,2,3,6,7,8-HxCDD	0.0132	0.0528	0.683	--		0.683	0.683	0.1	0.1	0.1	6.5%	9.0%
1,2,3,7,8,9-HxCDD	0.0148	0.0592	0.639	J		0.639	0.3195	0.1	0.1	0.0	6.1%	4.2%
1,2,3,4,6,7,8-HpCDF	0.0296	0.1184	2.95	--		2.95	2.95	0.01	0.0	0.0	2.8%	3.9%
1,2,3,4,7,8,9-HpCDF	0.0413	0.1652	0.716	--		0.716	0.716	0.01	0.0	0.0	0.7%	0.9%
1,2,3,4,6,7,8-HpCDD	0.0277	0.1108	6.98	--		6.98	6.98	0.01	0.1	0.1	6.7%	9.2%
OCDF	0.0223	0.0892	11.7	--		11.7	11.7	0.0001	0.0	0.0	0.1%	0.2%
OCDD	0.0261	0.1044	51	--		51	51	0.0001	0.0	0.0	0.5%	0.7%
PCB-77	0.0331	0.1324	11	B	<5x*B	11	5.5	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.0433	0.1732	0.902	B	<5x*B	0.902	0.451	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.82	3.28	60.7	--		60.7	60.7	0.0001	0.0	0.0	0.6%	0.8%
PCB-114	0.857	3.428	2.82	B	<5x*B	2.82	0.705	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.898	3.592	121	B	<5x*B	121	60.5	0.0001	0.0	0.0	1.2%	0.8%
PCB-123	1.02	4.08	3.51	B	<5x*B	3.51	0.8775	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.113	0.452	2.16	--		2.16	2.16	0.1	0.2	0.2	20.6%	28.3%
PCB-156	0.319	1.276	16.4	--		16.4	16.4	0.0005	0.0	0.0	0.8%	1.1%
PCB-157	0.329	1.316	4.27	B	<5x*B	4.27	2.135	0.0005	0.0	0.0	0.2%	0.1%
PCB-167	0.324	1.296	8.04	--		8.04	8.04	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.273	1.092		E		0.1365		0.01	0.0		0.1%	0.0%
PCB-189	0.222	0.888	1.55	--		1.55	1.55	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.8	0.5	0.2	0.2	1.0	0.8

**APPENDIX A1. Field Results****FINAL**

Sample ID	564	Field		S33									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0717	0.2868	0.193	NJ		0.0965		0.1	0.0		0.6%	0.0%	
2,3,7,8-TCDD	0.00328	0.0131	--			0.00164		1	0.0		0.1%	0.0%	
1,2,3,7,8-PeCDF	0.00136	0.0054	0.274	--		0.274	0.274	0.05	0.0	0.0	0.8%	1.4%	
2,3,4,7,8-PeCDF	0.00104	0.0042	0.376	--		0.376	0.376	0.5	0.2	0.2	11.6%	19.1%	
1,2,3,7,8-PeCDD	0.291	1.164	--	E		0.1455		1	0.1		9.0%	0.0%	
1,2,3,4,7,8-HxCDF	0.0664	0.2656	0.385	B	<5x*B	0.385	0.1925	0.1	0.0	0.0	2.4%	2.0%	
1,2,3,6,7,8-HxCDF	0.307	1.228	--	E		0.1535		0.1	0.0		0.9%	0.0%	
2,3,4,6,7,8-HxCDF	0.0594	0.2376	0.477	B	<5x*B	0.477	0.2385	0.1	0.0	0.0	3.0%	2.4%	
1,2,3,7,8,9-HxCDF	0.0669	0.2676	0.405	B	<5x*B	0.405	0.2025	0.1	0.0	0.0	2.5%	2.1%	
1,2,3,4,7,8-HxCDD	0.303	1.212	--	E		0.1515		0.1	0.0		0.9%	0.0%	
1,2,3,6,7,8-HxCDD	0.00641	0.0256	0.546	--		0.546	0.546	0.1	0.1	0.1	3.4%	5.5%	
1,2,3,7,8,9-HxCDD	0.00665	0.0266	0.54	--		0.54	0.54	0.1	0.1	0.1	3.3%	5.5%	
1,2,3,4,6,7,8-HpCDF	0.0262	0.1048	3.5	--		3.5	3.5	0.01	0.0	0.0	2.2%	3.6%	
1,2,3,4,7,8,9-HpCDF	0.412	1.648	--	E		0.206		0.01	0.0		0.1%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.0264	0.1056	14.2	--		14.2	14.2	0.01	0.1	0.1	8.8%	14.4%	
OCDF	0.00693	0.0277	8.94	--		8.94	8.94	0.0001	0.0	0.0	0.1%	0.1%	
OCDD	0.0134	0.0536	215	--		215	215	0.0001	0.0	0.0	1.3%	2.2%	
PCB-77	0.126	0.504	25.2	--		25.2	25.2	0.0001	0.0	0.0	0.2%	0.3%	
PCB-81	0.139	0.556	1.31	B	<5x*B	1.31	0.655	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.376	1.504	98.8	B	<5x*B	98.8	49.4	0.0001	0.0	0.0	0.6%	0.5%	
PCB-114	0.373	1.492	3.94	--		3.94	3.94	0.0005	0.0	0.0	0.1%	0.2%	
PCB-118	0.328	1.312	178	B	<5x*B	178	89	0.0001	0.0	0.0	1.1%	0.9%	
PCB-123	0.369	1.476	4.21	B	<5x*B	4.21	2.105	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.129	0.516	7.28	J		7.28	3.64	0.1	0.7	0.4	45.0%	36.9%	
PCB-156	0.265	1.06	35.2	--		35.2	35.2	0.0005	0.0	0.0	1.1%	1.8%	
PCB-157	0.28	1.12	9.18	--		9.18	9.18	0.0005	0.0	0.0	0.3%	0.5%	
PCB-167	0.258	1.032	15	--		15	15	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0292	0.1168	0.747	--		0.747	0.747	0.01	0.0	0.0	0.5%	0.8%	
PCB-189	0.157	0.628	4.47	--		4.47	4.47	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.8	0.6	0.8	0.4	1.6	1.0

## APPENDIX A1. Field Results

FINAL

Sample ID	693	Field		S34								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.132	0.528	0.232	NJ		0.116		0.1	0.0		0.7%	0.0%
2,3,7,8-TCDD	0.00204	0.0082		--		0.00102		1	0.0		0.1%	0.0%
1,2,3,7,8-PeCDF	0.271	1.084		E		0.1355		0.05	0.0		0.4%	0.0%
2,3,4,7,8-PeCDF	0.00547	0.0219	0.308	--		0.308	0.308	0.5	0.2	0.2	9.2%	9.9%
1,2,3,7,8-PeCDD	0.002	0.008	0.325	--		0.325	0.325	1	0.3	0.3	19.5%	20.8%
1,2,3,4,7,8-HxCDF	0.56	2.24		E	<5x*B	0.28		0.1	0.0		1.7%	0.0%
1,2,3,6,7,8-HxCDF	0.0188	0.0752	0.328	--		0.328	0.328	0.1	0.0	0.0	2.0%	2.1%
2,3,4,6,7,8-HxCDF	0.0217	0.0868	0.426	B	<5x*B	0.426	0.213	0.1	0.0	0.0	2.6%	1.4%
1,2,3,7,8,9-HxCDF	0.0247	0.0988	0.347	B	<5x*B	0.347	0.1735	0.1	0.0	0.0	2.1%	1.1%
1,2,3,4,7,8-HxCDD	0.0231	0.0924	0.354	--		0.354	0.354	0.1	0.0	0.0	2.1%	2.3%
1,2,3,6,7,8-HxCDD	0.0223	0.0892	0.541	--		0.541	0.541	0.1	0.1	0.1	3.2%	3.5%
1,2,3,7,8,9-HxCDD	0.0236	0.0944	0.449	--		0.449	0.449	0.1	0.0	0.0	2.7%	2.9%
1,2,3,4,6,7,8-HpCDF	0.0419	0.1676	3.48	--		3.48	3.48	0.01	0.0	0.0	2.1%	2.2%
1,2,3,4,7,8,9-HpCDF	0.511	2.044		E		0.2555		0.01	0.0		0.2%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0214	0.0856	12.6	--		12.6	12.6	0.01	0.1	0.1	7.6%	8.1%
OCDF	0.0227	0.0908	8.72	--		8.72	8.72	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.018	0.072	103	--		103	103	0.0001	0.0	0.0	0.6%	0.7%
PCB-77	6.18	24.72	20.9	--		20.9	10.45	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	6.58	26.32		--	<5x*B	3.29		0.0001	0.0		0.0%	0.0%
PCB-105	2.08	8.32	81.9	B	<5x*B	81.9	40.95	0.0001	0.0	0.0	0.5%	0.3%
PCB-114	2.07	8.28	3.81	--		3.81	1.905	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	1.74	6.96	169	B	<5x*B	169	84.5	0.0001	0.0	0.0	1.0%	0.5%
PCB-123	1.96	7.84	5.15	BJ	<5x*B	5.15	1.2875	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.111	0.444	6.62	--		6.62	6.62	0.1	0.7	0.7	39.7%	42.4%
PCB-156	0.228	0.912	33.3	--		33.3	33.3	0.0005	0.0	0.0	1.0%	1.1%
PCB-157	0.24	0.96	9.53	--		9.53	9.53	0.0005	0.0	0.0	0.3%	0.3%
PCB-167	0.221	0.884	16.9	J		16.9	8.45	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.034	0.136	0.783	--		0.783	0.783	0.01	0.0	0.0	0.5%	0.5%
PCB-189	0.0743	0.2972	4.35	--		4.35	4.35	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.9	0.9	0.7	0.7	1.7	1.6

## APPENDIX A1. Field Results

FINAL

Sample ID	389	Field		S35								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	1.75	7	1.04	NJ		0.4375		0.1	0.0		0.9%	0.0%
2,3,7,8-TCDD	0.0484	0.1936		--		0.0242		1	0.0		0.5%	0.0%
1,2,3,7,8-PeCDF	0.0259	0.1036	5.2	--		5.2	5.2	0.05	0.3	0.3	5.1%	6.5%
2,3,4,7,8-PeCDF	0.0203	0.0812	1.17	--		1.17	1.17	0.5	0.6	0.6	11.6%	14.7%
1,2,3,7,8-PeCDD	0.366	1.464		E		0.183		1	0.2		3.6%	0.0%
1,2,3,4,7,8-HxCDF	0.0232	0.0928	8.21	--		8.21	8.21	0.1	0.8	0.8	16.3%	20.6%
1,2,3,6,7,8-HxCDF	0.0208	0.0832	4.2	--		4.2	4.2	0.1	0.4	0.4	8.3%	10.5%
2,3,4,6,7,8-HxCDF	0.0246	0.0984	2.21	--		2.21	2.21	0.1	0.2	0.2	4.4%	5.5%
1,2,3,7,8,9-HxCDF	0.0291	0.1164	2.16	B	<5x*B	2.16	1.08	0.1	0.2	0.1	4.3%	2.7%
1,2,3,4,7,8-HxCDD	0.0313	0.1252	0.534	B	<5x*B	0.534	0.267	0.1	0.1	0.0	1.1%	0.7%
1,2,3,6,7,8-HxCDD	0.0285	0.114	0.918	--		0.918	0.918	0.1	0.1	0.1	1.8%	2.3%
1,2,3,7,8,9-HxCDD	0.031	0.124	0.764	--		0.764	0.764	0.1	0.1	0.1	1.5%	1.9%
1,2,3,4,6,7,8-HpCDF	0.0434	0.1736	23.7	--		23.7	23.7	0.01	0.2	0.2	4.7%	5.9%
1,2,3,4,7,8,9-HpCDF	0.0631	0.2524	9.81	--		9.81	9.81	0.01	0.1	0.1	1.9%	2.5%
1,2,3,4,6,7,8-HpCDD	0.0555	0.222	18.5	--		18.5	18.5	0.01	0.2	0.2	3.7%	4.6%
OCDF	0.022	0.088	142	--		142	142	0.0001	0.0	0.0	0.3%	0.4%
OCDD	0.0483	0.1932	142	--		142	142	0.0001	0.0	0.0	0.3%	0.4%
PCB-77	0.141	0.564	76.8	--		76.8	76.8	0.0001	0.0	0.0	0.2%	0.2%
PCB-81	0.142	0.568	2.92	B	<5x*B	2.92	1.46	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	1.91	7.64	406	--		406	406	0.0001	0.0	0.0	0.8%	1.0%
PCB-114	1.9	7.6	21.1	--		21.1	21.1	0.0005	0.0	0.0	0.2%	0.3%
PCB-118	1.6	6.4	809	CJ		809	404.5	0.0001	0.1	0.0	1.6%	1.0%
PCB-123	1.79	7.16		--		0.895		0.0001	0.0		0.0%	0.0%
PCB-126	6.69	26.76	12.7	--		12.7	6.35	0.1	1.3	0.6	25.1%	15.9%
PCB-156	0.823	3.292	134	--		134	134	0.0005	0.1	0.1	1.3%	1.7%
PCB-157	0.867	3.468	32.1	--		32.1	32.1	0.0005	0.0	0.0	0.3%	0.4%
PCB-167	0.799	3.196	60.5	--		60.5	60.5	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0625	0.25	1.14	--		1.14	1.14	0.01	0.0	0.0	0.2%	0.3%
PCB-189	1.1	4.4	19	--		19	19	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
3.5	3.2	1.5	0.8	5.1	4.0

**APPENDIX A1. Field Results****FINAL**

Sample ID	991	Field		S36									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.102	0.408	0.601	NJ		0.3005		0.1	0.0		1.5%	0.0%	
2,3,7,8-TCDD	0.0458	0.1832		--		0.0229		1	0.0		1.2%	0.0%	
1,2,3,7,8-PeCDF	0.0266	0.1064	2.46	--		2.46	2.46	0.05	0.1	0.1	6.2%	7.3%	
2,3,4,7,8-PeCDF	0.586	2.344		E		0.293		0.5	0.1		7.4%	0.0%	
1,2,3,7,8-PeCDD	0.0262	0.1048		--		0.0131		1	0.0		0.7%	0.0%	
1,2,3,4,7,8-HxCDF	0.0313	0.1252	3.59	--		3.59	3.59	0.1	0.4	0.4	18.1%	21.2%	
1,2,3,6,7,8-HxCDF	0.0271	0.1084	1.91	--		1.91	1.91	0.1	0.2	0.2	9.6%	11.3%	
2,3,4,6,7,8-HxCDF	0.0314	0.1256	0.992	--		0.992	0.992	0.1	0.1	0.1	5.0%	5.9%	
1,2,3,7,8,9-HxCDF	0.0376	0.1504	1.1	B	<5x*B	1.1	0.55	0.1	0.1	0.1	5.6%	3.3%	
1,2,3,4,7,8-HxCDD	0.0315	0.126	0.385	--		0.385	0.385	0.1	0.0	0.0	1.9%	2.3%	
1,2,3,6,7,8-HxCDD	0.0265	0.106	0.713	--		0.713	0.713	0.1	0.1	0.1	3.6%	4.2%	
1,2,3,7,8,9-HxCDD	0.0297	0.1188	0.804	--		0.804	0.804	0.1	0.1	0.1	4.1%	4.8%	
1,2,3,4,6,7,8-HpCDF	0.042	0.168	11.3	--		11.3	11.3	0.01	0.1	0.1	5.7%	6.7%	
1,2,3,4,7,8,9-HpCDF	0.0564	0.2256	3.99	--		3.99	3.99	0.01	0.0	0.0	2.0%	2.4%	
1,2,3,4,6,7,8-HpCDD	0.0281	0.1124	7.69	--		7.69	7.69	0.01	0.1	0.1	3.9%	4.6%	
OCDF	0.0259	0.1036	78	--		78	78	0.0001	0.0	0.0	0.4%	0.5%	
OCDD	0.0281	0.1124	78.7	--		78.7	78.7	0.0001	0.0	0.0	0.4%	0.5%	
PCB-77	1.56	6.24	20.7	--		20.7	20.7	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	1.89	7.56	3.39	B	<5x*B	3.39	0.8475	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	1.44	5.76	91.9	B	<5x*B	91.9	45.95	0.0001	0.0	0.0	0.5%	0.3%	
PCB-114	3.52	14.08		E		1.76		0.0005	0.0		0.0%	0.0%	
PCB-118	1.36	5.44	188	B	<5x*B	188	94	0.0001	0.0	0.0	1.0%	0.6%	
PCB-123	1.52	6.08	7.71	J		7.71	3.855	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.171	0.684	3.95	--		3.95	3.95	0.1	0.4	0.4	19.9%	23.4%	
PCB-156	0.482	1.928	26.3	B	<5x*B	26.3	13.15	0.0005	0.0	0.0	0.7%	0.4%	
PCB-157	0.508	2.032	9.07	--		9.07	9.07	0.0005	0.0	0.0	0.2%	0.3%	
PCB-167	0.469	1.876	12.7	J		12.7	6.35	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0913	0.3652	0.489	--		0.489	0.489	0.01	0.0	0.0	0.3%	0.3%	
PCB-189	0.156	0.624	3.61	--		3.61	3.61	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.5	1.3	0.5	0.4	2.0	1.7

**APPENDIX A1. Field Results****FINAL**

Sample ID	102	Field		S4									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0921	0.3684		E		0.04605		0.1	0.0		0.4%	0.0%	
2,3,7,8-TCDD	0.00249	0.01		--		0.001245		1	0.0		0.1%	0.0%	
1,2,3,7,8-PeCDF	0.00148	0.0059	0.18	--		0.18	0.18	0.05	0.0	0.0	0.8%	1.3%	
2,3,4,7,8-PeCDF	0.239	0.956		E		0.1195		0.5	0.1		5.6%	0.0%	
1,2,3,7,8-PeCDD	0.0191	0.0764	0.22	--		0.22	0.22	1	0.2	0.2	20.7%	30.9%	
1,2,3,4,7,8-HxCDF	0.241	0.964		E	<5x*B	0.1205		0.1	0.0		1.1%	0.0%	
1,2,3,6,7,8-HxCDF	0.168	0.672		E		0.084		0.1	0.0		0.8%	0.0%	
2,3,4,6,7,8-HxCDF	0.0314	0.1256	0.426	B	<5x*B	0.426	0.213	0.1	0.0	0.0	4.0%	3.0%	
1,2,3,7,8,9-HxCDF	0.0377	0.1508	0.268	B	<5x*B	0.268	0.134	0.1	0.0	0.0	2.5%	1.9%	
1,2,3,4,7,8-HxCDD	0.315	1.26		E		0.1575		0.1	0.0		1.5%	0.0%	
1,2,3,6,7,8-HxCDD	0.377	1.508		E		0.1885		0.1	0.0		1.8%	0.0%	
1,2,3,7,8,9-HxCDD	0.00169	0.0068	0.233	--		0.233	0.233	0.1	0.0	0.0	2.2%	3.3%	
1,2,3,4,6,7,8-HpCDF	0.0225	0.09	2.37	--		2.37	2.37	0.01	0.0	0.0	2.2%	3.3%	
1,2,3,4,7,8,9-HpCDF	0.0251	0.1004	0.32	--		0.32	0.32	0.01	0.0	0.0	0.3%	0.4%	
1,2,3,4,6,7,8-HpCDD	0.0392	0.1568	10	--		10	10	0.01	0.1	0.1	9.4%	14.0%	
OCDF	0.0209	0.0836	5.12	--		5.12	5.12	0.0001	0.0	0.0	0.0%	0.1%	
OCDD	0.0173	0.0692	80.4	--		80.4	80.4	0.0001	0.0	0.0	0.8%	1.1%	
PCB-77	0.187	0.748	12.8	B	<5x*B	12.8	6.4	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	0.198	0.792	0.927	B	<5x*B	0.927	0.4635	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.41	1.64	148	--		148	148	0.0001	0.0	0.0	1.4%	2.1%	
PCB-114	0.407	1.628	6.9	--		6.9	6.9	0.0005	0.0	0.0	0.3%	0.5%	
PCB-118	0.368	1.472	356	--		356	356	0.0001	0.0	0.0	3.4%	5.0%	
PCB-123	0.414	1.656	5.85	B	<5x*B	5.85	2.925	0.0001	0.0	0.0	0.1%	0.0%	
PCB-126	0.117	0.468	3.87	J		3.87	1.935	0.1	0.4	0.2	36.4%	27.2%	
PCB-156	0.131	0.524	59	--		59	59	0.0005	0.0	0.0	2.8%	4.1%	
PCB-157	0.138	0.552	12.9	--		12.9	12.9	0.0005	0.0	0.0	0.6%	0.9%	
PCB-167	0.127	0.508	21.7	--		21.7	21.7	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0417	0.1668	0.493	--		0.493	0.493	0.01	0.0	0.0	0.5%	0.7%	
PCB-189	0.059	0.236	3.88	--		3.88	3.88	0.0001	0.0	0.0	0.0%	0.1%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.6	0.4	0.5	0.3	1.1	0.7

## APPENDIX A1. Field Results

FINAL

Sample ID	234	Field		S5								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0294	0.1176	0.386	NJ		0.193		0.1	0.0		0.9%	0.0%
2,3,7,8-TCDD	0.0205	0.082	0.934	--		0.934	0.934	1	0.9	0.9	45.9%	54.9%
1,2,3,7,8-PeCDF	0.14	0.56	0.683	--		0.683	0.683	0.05	0.0	0.0	1.7%	2.0%
2,3,4,7,8-PeCDF	0.117	0.468	0.414	--		0.414	0.207	0.5	0.2	0.1	10.2%	6.1%
1,2,3,7,8-PeCDD	0.275	1.1		E		0.1375		1	0.1		6.8%	0.0%
1,2,3,4,7,8-HxCDF	0.0727	0.2908	1	--		1	1	0.1	0.1	0.1	4.9%	5.9%
1,2,3,6,7,8-HxCDF	0.0624	0.2496	0.686	B	<5x*B	0.686	0.343	0.1	0.1	0.0	3.4%	2.0%
2,3,4,6,7,8-HxCDF	0.0763	0.3052	0.426	--		0.426	0.426	0.1	0.0	0.0	2.1%	2.5%
1,2,3,7,8,9-HxCDF	0.0894	0.3576	0.508	--		0.508	0.508	0.1	0.1	0.1	2.5%	3.0%
1,2,3,4,7,8-HxCDD	0.205	0.82		E		0.1025		0.1	0.0		0.5%	0.0%
1,2,3,6,7,8-HxCDD	0.0103	0.0412	0.401	--		0.401	0.401	0.1	0.0	0.0	2.0%	2.4%
1,2,3,7,8,9-HxCDD	0.0122	0.0488	0.341	J		0.341	0.1705	0.1	0.0	0.0	1.7%	1.0%
1,2,3,4,6,7,8-HpCDF	0.0256	0.1024	3.62	--		3.62	3.62	0.01	0.0	0.0	1.8%	2.1%
1,2,3,4,7,8,9-HpCDF	0.0382	0.1528	1.12	--		1.12	1.12	0.01	0.0	0.0	0.6%	0.7%
1,2,3,4,6,7,8-HpCDD	0.0243	0.0972	8.44	--		8.44	8.44	0.01	0.1	0.1	4.1%	5.0%
OCDF	0.0257	0.1028	18	--		18	18	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.0261	0.1044	71.9	--		71.9	71.9	0.0001	0.0	0.0	0.4%	0.4%
PCB-77	0.0698	0.2792	6.18	B	<5x*B	6.18	3.09	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.0983	0.3932	0.661	B	<5x*B	0.661	0.3305	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.665	2.66	33	B	<5x*B	33	16.5	0.0001	0.0	0.0	0.2%	0.1%
PCB-114	0.695	2.78	1.41	B	<5x*B	1.41	0.3525	0.0005	0.0	0.0	0.0%	0.0%
PCB-118	0.713	2.852	72.6	B	<5x*B	72.6	36.3	0.0001	0.0	0.0	0.4%	0.2%
PCB-123	0.811	3.244	2.76	B	<5x*B	2.76	0.69	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.135	0.54	1.89	--		1.89	1.89	0.1	0.2	0.2	9.3%	11.1%
PCB-156	0.196	0.784	15.7	B	<5x*B	15.7	7.85	0.0005	0.0	0.0	0.4%	0.2%
PCB-157	0.202	0.808	4.58	B	<5x*B	4.58	2.29	0.0005	0.0	0.0	0.1%	0.1%
PCB-167	0.199	0.796	8.29	--		8.29	8.29	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0662	0.2648	0.422	--		0.422	0.422	0.01	0.0	0.0	0.2%	0.2%
PCB-189	0.189	0.756	2.46	--		2.46	2.46	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.8	1.5	0.2	0.2	2.0	1.7

Sample ID	830	Field		S6								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0358	0.1432	0.366	NJ		0.183		0.1	0.0		1.0%	0.0%
2,3,7,8-TCDD	0.0253	0.1012		--		0.01265		1	0.0		0.7%	0.0%
1,2,3,7,8-PeCDF	0.0326	0.1304	1.87	--		1.87	1.87	0.05	0.1	0.1	5.0%	6.3%
2,3,4,7,8-PeCDF	0.0225	0.09	0.403	--		0.403	0.403	0.5	0.2	0.2	10.8%	13.5%
1,2,3,7,8-PeCDD	0.361	1.444		E		0.1805		1	0.2		9.7%	0.0%
1,2,3,4,7,8-HxCDF	0.0522	0.2088	3.19	--		3.19	3.19	0.1	0.3	0.3	17.1%	21.4%
1,2,3,6,7,8-HxCDF	0.0446	0.1784	1.98	B	<5x*B	1.98	0.99	0.1	0.2	0.1	10.6%	6.6%
2,3,4,6,7,8-HxCDF	0.0507	0.2028	0.864	--		0.864	0.864	0.1	0.1	0.1	4.6%	5.8%
1,2,3,7,8,9-HxCDF	0.0618	0.2472	1.14	--		1.14	1.14	0.1	0.1	0.1	6.1%	7.6%
1,2,3,4,7,8-HxCDD	0.00298	0.0119	0.262	--		0.262	0.262	0.1	0.0	0.0	1.4%	1.8%
1,2,3,6,7,8-HxCDD	0.00218	0.0087	0.742	--		0.742	0.742	0.1	0.1	0.1	4.0%	5.0%
1,2,3,7,8,9-HxCDD	0.0026	0.0104	1	J		1	0.5	0.1	0.1	0.1	5.4%	3.4%
1,2,3,4,6,7,8-HpCDF	0.0396	0.1584	9.32	--		9.32	9.32	0.01	0.1	0.1	5.0%	6.2%
1,2,3,4,7,8,9-HpCDF	0.0432	0.1728	3.85	--		3.85	3.85	0.01	0.0	0.0	2.1%	2.6%
1,2,3,4,6,7,8-HpCDD	0.0227	0.0908	6.4	--		6.4	6.4	0.01	0.1	0.1	3.4%	4.3%
OCDF	0.031	0.124	56.1	--		56.1	56.1	0.0001	0.0	0.0	0.3%	0.4%
OCDD	0.0293	0.1172	47.2	--		47.2	47.2	0.0001	0.0	0.0	0.3%	0.3%
PCB-77	0.0723	0.2892	12.2	B	<5x*B	12.2	6.1	0.0001	0.0	0.0	0.1%	0.0%
PCB-81	0.0905	0.362	0.869	B	<5x*B	0.869	0.4345	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.184	0.736	47.2	B	<5x*B	47.2	23.6	0.0001	0.0	0.0	0.3%	0.2%
PCB-114	0.193	0.772	2.03	B	<5x*B	2.03	1.015	0.0005	0.0	0.0	0.1%	0.0%
PCB-118	0.201	0.804	72.3	B	<5x*B	72.3	36.15	0.0001	0.0	0.0	0.4%	0.2%
PCB-123	0.228	0.912		--	<5x*B	0.114		0.0001	0.0		0.0%	0.0%
PCB-126	0.158	0.632	2.11	--		2.11	2.11	0.1	0.2	0.2	11.3%	14.1%
PCB-156	0.189	0.756	13.8	B	<5x*B	13.8	6.9	0.0005	0.0	0.0	0.4%	0.2%
PCB-157	0.196	0.784	4.3	B	<5x*B	4.3	2.15	0.0005	0.0	0.0	0.1%	0.1%
PCB-167	0.192	0.768	7.34	B	<5x*B	7.34	3.67	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.403	1.612		E		0.2015		0.01	0.0		0.1%	0.0%
PCB-189	0.189	0.756	2.46	--		2.46	2.46	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.6	1.3	0.2	0.2	1.9	1.5

## APPENDIX A1. Field Results

FINAL

Sample ID	788	Field		S7								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.223	0.892		E		0.1115		0.1	0.0		0.8%	0.0%
2,3,7,8-TCDD	0.0115	0.046		--		0.00575		1	0.0		0.4%	0.0%
1,2,3,7,8-PeCDF	0.0375	0.15	0.553	--		0.553	0.553	0.05	0.0	0.0	2.0%	2.1%
2,3,4,7,8-PeCDF	0.029	0.116	0.298	--		0.298	0.298	0.5	0.1	0.1	10.8%	11.3%
1,2,3,7,8-PeCDD	0.0202	0.0808	0.308	--		0.308	0.308	1	0.3	0.3	22.3%	23.4%
1,2,3,4,7,8-HxCDF	0.0191	0.0764	0.687	--		0.687	0.687	0.1	0.1	0.1	5.0%	5.2%
1,2,3,6,7,8-HxCDF	0.0172	0.0688	0.473	B	<5x*B	0.473	0.2365	0.1	0.0	0.0	3.4%	1.8%
2,3,4,6,7,8-HxCDF	0.0184	0.0736	0.429	--		0.429	0.429	0.1	0.0	0.0	3.1%	3.3%
1,2,3,7,8,9-HxCDF	0.0188	0.0752	0.481	--		0.481	0.481	0.1	0.0	0.0	3.5%	3.7%
1,2,3,4,7,8-HxCDD	0.0195	0.078	0.267	--		0.267	0.267	0.1	0.0	0.0	1.9%	2.0%
1,2,3,6,7,8-HxCDD	0.0147	0.0588	0.473	--		0.473	0.473	0.1	0.0	0.0	3.4%	3.6%
1,2,3,7,8,9-HxCDD	0.395	1.58		EJ		0.1975		0.1	0.0		1.4%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0233	0.0932	3.6	--		3.6	3.6	0.01	0.0	0.0	2.6%	2.7%
1,2,3,4,7,8,9-HpCDF	0.0312	0.1248	0.929	--		0.929	0.929	0.01	0.0	0.0	0.7%	0.7%
1,2,3,4,6,7,8-HpCDD	0.0225	0.09	11.3	--		11.3	11.3	0.01	0.1	0.1	8.2%	8.6%
OCDF	0.0116	0.0464	33.8	--		33.8	33.8	0.0001	0.0	0.0	0.2%	0.3%
OCDD	0.0181	0.0724	96.2	--		96.2	96.2	0.0001	0.0	0.0	0.7%	0.7%
PCB-77	0.0334	0.1336	9.92	B	<5x*B	9.92	4.96	0.0001	0.0	0.0	0.1%	0.0%
PCB-81	0.0425	0.17	0.802	B	<5x*B	0.802	0.401	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.231	0.924	59.4	--		59.4	59.4	0.0001	0.0	0.0	0.4%	0.5%
PCB-114	0.242	0.968	3.2	B	<5x*B	3.2	1.6	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.313	1.252	139	--		139	139	0.0001	0.0	0.0	1.0%	1.1%
PCB-123	0.355	1.42	4.5	J		4.5	2.25	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.0536	0.2144	3.69	--		3.69	3.69	0.1	0.4	0.4	26.7%	28.0%
PCB-156	0.0923	0.3692	23.5	--		23.5	23.5	0.0005	0.0	0.0	0.9%	0.9%
PCB-157	0.0954	0.3816	6.24	--		6.24	6.24	0.0005	0.0	0.0	0.2%	0.2%
PCB-167	0.0939	0.3756	12.7	--		12.7	12.7	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.422	1.688		E		0.211		0.01	0.0		0.2%	0.0%
PCB-189	0.132	0.528	3.01	--		3.01	3.01	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.0	0.9	0.4	0.4	1.4	1.3

## APPENDIX A1. Field Results

FINAL

Sample ID	589	Field		S8								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0543	0.2172	--		0.02715		0.1	0.0			0.8%	0.0%
2,3,7,8-TCDD	0.0284	0.1136	--		0.0142		1	0.0			3.9%	0.0%
1,2,3,7,8-PeCDF	0.0981	0.3924	--		0.04905		0.05	0.0			0.7%	0.0%
2,3,4,7,8-PeCDF	0.0692	0.2768	--		0.0346		0.5	0.0			4.8%	0.0%
1,2,3,7,8-PeCDD	0.0593	0.2372	--		0.02965		1	0.0			8.2%	0.0%
1,2,3,4,7,8-HxCDF	0.023	0.092	0.266	--	0.266	0.266	0.1	0.0	0.0		7.3%	10.8%
1,2,3,6,7,8-HxCDF	0.0204	0.0816	0.206	B	<5x*B	0.206	0.103	0.1	0.0	0.0	5.7%	4.2%
2,3,4,6,7,8-HxCDF	0.0242	0.0968	--		0.0121		0.1	0.0			0.3%	0.0%
1,2,3,7,8,9-HxCDF	0.0296	0.1184	0.391	--	0.391	0.391	0.1	0.0	0.0		10.8%	15.8%
1,2,3,4,7,8-HxCDD	0.205	0.82	E		0.1025		0.1	0.0			2.8%	0.0%
1,2,3,6,7,8-HxCDD	0.0441	0.1764	0.279	--	0.279	0.279	0.1	0.0	0.0		7.7%	11.3%
1,2,3,7,8,9-HxCDD	0.237	0.948	EJ		0.1185		0.1	0.0			3.3%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0208	0.0832	1.29	B	<5x*B	1.29	0.645	0.01	0.0	0.0	3.6%	2.6%
1,2,3,4,7,8,9-HpCDF	0.362	1.448	E		0.181		0.01	0.0			0.5%	0.0%
1,2,3,4,6,7,8-HpCDD	0.0141	0.0564	4.28	--	4.28	4.28	0.01	0.0	0.0		11.8%	17.3%
OCDF	0.0607	0.2428	4.85	--	4.85	4.85	0.0001	0.0	0.0		0.1%	0.2%
OCDD	0.046	0.184	36.1	--	36.1	36.1	0.0001	0.0	0.0		1.0%	1.5%
PCB-77	0.0602	0.2408	2.94	B	<5x*B	2.94	1.47	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.0904	0.3616	0.718	B	<5x*B	0.718	0.359	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.504	2.016	19.9	B	<5x*B	19.9	9.95	0.0001	0.0	0.0	0.6%	0.4%
PCB-114	0.527	2.108	1.48	B	<5x*B	1.48	0.37	0.0005	0.0	0.0	0.2%	0.1%
PCB-118	0.57	2.28	48.5	B	<5x*B	48.5	24.25	0.0001	0.0	0.0	1.3%	1.0%
PCB-123	1.24	4.96	E	<5x*B	0.62		0.0001	0.0			0.0%	0.0%
PCB-126	0.184	0.736	0.845	--	0.845	0.845	0.1	0.1	0.1		23.3%	34.2%
PCB-156	0.205	0.82	7.12	B	<5x*B	7.12	3.56	0.0005	0.0	0.0	1.0%	0.7%
PCB-157	1.96	7.84	E	<5x*B	0.98		0.0005	0.0			0.1%	0.0%
PCB-167	0.209	0.836	3.8	B	<5x*B	3.8	1.9	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.109	0.436	--		0.0545		0.01	0.0			0.2%	0.0%
PCB-189	0.143	0.572	1.05	--	1.05	1.05	0.0001	0.0	0.0		0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.3	0.2	0.1	0.1	0.4	0.2

Sample ID	249	Field		S9								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.319	1.276		E		0.1595		0.1	0.0		0.6%	0.0%
2,3,7,8-TCDD	0.0024	0.0096		--		0.0012		1	0.0		0.0%	0.0%
1,2,3,7,8-PeCDF	0.437	1.748		E		0.2185		0.05	0.0		0.4%	0.0%
2,3,4,7,8-PeCDF	0.539	2.156		E		0.2695		0.5	0.1		4.8%	0.0%
1,2,3,7,8-PeCDD	0.00221	0.0088	0.486	--		0.486	0.486	1	0.5	0.5	17.3%	24.2%
1,2,3,4,7,8-HxCDF	0.0541	0.2164	0.654	--		0.654	0.654	0.1	0.1	0.1	2.3%	3.3%
1,2,3,6,7,8-HxCDF	0.0483	0.1932	0.469	--		0.469	0.469	0.1	0.0	0.0	1.7%	2.3%
2,3,4,6,7,8-HxCDF	0.0547	0.2188	0.752	--		0.752	0.752	0.1	0.1	0.1	2.7%	3.7%
1,2,3,7,8,9-HxCDF	0.0601	0.2404	0.387	B	<5x*B	0.387	0.1935	0.1	0.0	0.0	1.4%	1.0%
1,2,3,4,7,8-HxCDD	0.692	2.768		E		0.346		0.1	0.0		1.2%	0.0%
1,2,3,6,7,8-HxCDD	0.00169	0.0068	1.31	--		1.31	1.31	0.1	0.1	0.1	4.7%	6.5%
1,2,3,7,8,9-HxCDD	0.00164	0.0066	0.819	--		0.819	0.819	0.1	0.1	0.1	2.9%	4.1%
1,2,3,4,6,7,8-HpCDF	0.0571	0.2284	6.42	--		6.42	6.42	0.01	0.1	0.1	2.3%	3.2%
1,2,3,4,7,8,9-HpCDF	0.0825	0.33	0.657	--		0.657	0.657	0.01	0.0	0.0	0.2%	0.3%
1,2,3,4,6,7,8-HpCDD	0.0191	0.0764	34.6	--		34.6	34.6	0.01	0.3	0.3	12.3%	17.2%
OCDF	0.00597	0.0239	19.1	--		19.1	19.1	0.0001	0.0	0.0	0.1%	0.1%
OCDD	0.0226	0.0904	311	--		311	311	0.0001	0.0	0.0	1.1%	1.5%
PCB-77	0.0261	0.1044	37.6	--		37.6	37.6	0.0001	0.0	0.0	0.1%	0.2%
PCB-81	0.03	0.12	1.51	B	<5x*B	1.51	0.755	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	1.22	4.88	133	--		133	133	0.0001	0.0	0.0	0.5%	0.7%
PCB-114	1.22	4.88	4.94	--		4.94	4.94	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	1.08	4.32	254	B	<5x*B	254	127	0.0001	0.0	0.0	0.9%	0.6%
PCB-123	1.21	4.84	7.75	--		7.75	7.75	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.0554	0.2216	11.4	J		11.4	5.7	0.1	1.1	0.6	40.5%	28.3%
PCB-156	0.203	0.812	61.5	--		61.5	61.5	0.0005	0.0	0.0	1.1%	1.5%
PCB-157	0.214	0.856	14.5	--		14.5	14.5	0.0005	0.0	0.0	0.3%	0.4%
PCB-167	0.197	0.788	26.6	--		26.6	26.6	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0221	0.0884	1.45	--		1.45	1.45	0.01	0.0	0.0	0.5%	0.7%
PCB-189	0.114	0.456	8.19	--		8.19	8.19	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.6	1.4	1.2	0.7	2.8	2.0

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	429-B	Bulk		S2								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.705	2.82	1.13	NJ		0.565		0.1	0.1		0.8%	0.0%
2,3,7,8-TCDD	0.0689	0.2756	1.9	--		1.9	1.9	1	1.9	1.9	27.9%	32.4%
1,2,3,7,8-PeCDF	0.0339	0.1356	4.19	--		4.19	4.19	0.05	0.2	0.2	3.1%	3.6%
2,3,4,7,8-PeCDF	0.0279	0.1116	1.4	--		1.4	1.4	0.5	0.7	0.7	10.3%	12.0%
1,2,3,7,8-PeCDD	0.658	2.632		E		0.329		1	0.3		4.8%	0.0%
1,2,3,4,7,8-HxCDF	0.0701	0.2804	6.81	--		6.81	6.81	0.1	0.7	0.7	10.0%	11.6%
1,2,3,6,7,8-HxCDF	0.0558	0.2232	3.59	--		3.59	3.59	0.1	0.4	0.4	5.3%	6.1%
2,3,4,6,7,8-HxCDF	0.0691	0.2764	1.99	--		1.99	1.99	0.1	0.2	0.2	2.9%	3.4%
1,2,3,7,8,9-HxCDF	0.0662	0.2648	1.55	B	<5x*B	1.55	0.775	0.1	0.2	0.1	2.3%	1.3%
1,2,3,4,7,8-HxCDD	0.0648	0.2592	0.862	B	<5x*B	0.862	0.431	0.1	0.1	0.0	1.3%	0.7%
1,2,3,6,7,8-HxCDD	0.0587	0.2348	2.02	--		2.02	2.02	0.1	0.2	0.2	3.0%	3.4%
1,2,3,7,8,9-HxCDD	0.0638	0.2552	1.3	--		1.3	1.3	0.1	0.1	0.1	1.9%	2.2%
1,2,3,4,6,7,8-HpCDF	0.225	0.9	22.4	--		22.4	22.4	0.01	0.2	0.2	3.3%	3.8%
1,2,3,4,7,8,9-HpCDF	0.31	1.24	6.45	--		6.45	6.45	0.01	0.1	0.1	0.9%	1.1%
1,2,3,4,6,7,8-HpCDD	0.0786	0.3144	42.1	--		42.1	42.1	0.01	0.4	0.4	6.2%	7.2%
OCDF	0.0543	0.2172	90.2	--		90.2	90.2	0.0001	0.0	0.0	0.1%	0.2%
OCDD	0.0423	0.1692	303	--		303	303	0.0001	0.0	0.0	0.4%	0.5%
PCB-77	0.152	0.608	38.1	--		38.1	38.1	0.0001	0.0	0.0	0.1%	0.1%
PCB-81	0.139	0.556	1.88	B	<5x*B	1.88	0.94	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	1.1	4.4	479	--		479	479	0.0001	0.0	0.0	0.7%	0.8%
PCB-114	1.09	4.36	26.2	--		26.2	26.2	0.0005	0.0	0.0	0.2%	0.2%
PCB-118	1.01	4.04	1120	CJ		1120	560	0.0001	0.1	0.1	1.6%	1.0%
PCB-123	1.13	4.52		--		0.565		0.0001	0.0		0.0%	0.0%
PCB-126	2.33	9.32	7.64	--		7.64	3.82	0.1	0.8	0.4	11.2%	6.5%
PCB-156	0.735	2.94	148	--		148	148	0.0005	0.1	0.1	1.1%	1.3%
PCB-157	0.774	3.096	36.4	--		36.4	36.4	0.0005	0.0	0.0	0.3%	0.3%
PCB-167	0.714	2.856	64.7	--		64.7	64.7	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.087	0.348	0.927	--		0.927	0.927	0.01	0.0	0.0	0.1%	0.2%
PCB-189	0.87	3.48	13.3	--		13.3	13.3	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
5.8	5.2	1.0	0.6	6.8	5.9

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	338	Duplicate	S23										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.057	0.228		--		0.0285		0.1	0.0		0.5%	0.0%	
2,3,7,8-TCDD	0.0328	0.1312		--		0.0164		1	0.0		3.0%	0.0%	
1,2,3,7,8-PeCDF	0.0178	0.0712	0.158	--		0.158	0.158	0.05	0.0	0.0	1.5%	2.0%	
2,3,4,7,8-PeCDF	0.118	0.472		E		0.059		0.5	0.0		5.4%	0.0%	
1,2,3,7,8-PeCDD	0.0149	0.0596		--		0.00745		1	0.0		1.4%	0.0%	
1,2,3,4,7,8-HxCDF	0.0247	0.0988	0.144	B	<5x*B	0.144	0.072	0.1	0.0	0.0	2.7%	1.8%	
1,2,3,6,7,8-HxCDF	0.0217	0.0868	0.279	--		0.279	0.279	0.1	0.0	0.0	5.1%	7.1%	
2,3,4,6,7,8-HxCDF	0.154	0.616		E	<5x*B	0.077		0.1	0.0		1.4%	0.0%	
1,2,3,7,8,9-HxCDF	0.0272	0.1088	0.372	B	<5x*B	0.372	0.186	0.1	0.0	0.0	6.8%	4.7%	
1,2,3,4,7,8-HxCDD	0.194	0.776		E		0.097		0.1	0.0		1.8%	0.0%	
1,2,3,6,7,8-HxCDD	0.00641	0.0256	0.874	--		0.874	0.874	0.1	0.1	0.1	16.1%	22.3%	
1,2,3,7,8,9-HxCDD	0.00716	0.0286	1.61	--		1.61	1.61	0.1	0.2	0.2	29.6%	41.0%	
1,2,3,4,6,7,8-HpCDF	0.0368	0.1472	0.79	--		0.79	0.79	0.01	0.0	0.0	1.5%	2.0%	
1,2,3,4,7,8,9-HpCDF	0.0499	0.1996	0.144	--		0.144	0.072	0.01	0.0	0.0	0.3%	0.2%	
1,2,3,4,6,7,8-HpCDD	0.0217	0.0868	2.28	--		2.28	2.28	0.01	0.0	0.0	4.2%	5.8%	
OCDF	0.0171	0.0684	2.11	B	<5x*B	2.11	1.055	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0118	0.0472	15	--		15	15	0.0001	0.0	0.0	0.3%	0.4%	
PCB-77	1.08	4.32	4.35	B	<5x*B	4.35	2.175	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	1.22	4.88		--	<5x*B	0.61		0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.323	1.292	20.3	B	<5x*B	20.3	10.15	0.0001	0.0	0.0	0.4%	0.3%	
PCB-114	0.901	3.604		E		0.4505		0.0005	0.0		0.0%	0.0%	
PCB-118	0.318	1.272	45.5	B	<5x*B	45.5	22.75	0.0001	0.0	0.0	0.8%	0.6%	
PCB-123	0.357	1.428	1.69	BJ	<5x*B	1.69	0.845	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.0939	0.3756	0.876	B	<5x*B	0.876	0.438	0.1	0.1	0.0	16.1%	11.2%	
PCB-156	0.23	0.92	5.09	B	<5x*B	5.09	2.545	0.0005	0.0	0.0	0.5%	0.3%	
PCB-157	1.72	6.88		E	<5x*B	0.86		0.0005	0.0		0.1%	0.0%	
PCB-167	0.224	0.896	2.36	BJ	<5x*B	2.36	1.18	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0649	0.2596	0.187	--		0.187	0.0935	0.01	0.0	0.0	0.3%	0.2%	
PCB-189	0.148	0.592	0.583	--		0.583	0.2915	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.4	0.3	0.1	0.0	0.5	0.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAWMB	<i>Lab Blank</i>											
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.00879	0.0352	--		0.004395		0.1	0.0			0.4%	0.0%	
2,3,7,8-TCDD	0.00244	0.0098	--		0.00122		1	0.0			1.1%	0.0%	
1,2,3,7,8-PeCDF	0.00133	0.0053	--		0.000665		0.05	0.0			0.0%	0.0%	
2,3,4,7,8-PeCDF	0.00102	0.0041	--		0.00051		0.5	0.0			0.2%	0.0%	
1,2,3,7,8-PeCDD	0.00137	0.0055	--		0.000685		1	0.0			0.6%	0.0%	
1,2,3,4,7,8-HxCDF	0.00094	0.0038	--		0.0004705		0.1	0.0			0.0%	0.0%	
1,2,3,6,7,8-HxCDF	0.181	0.724	E		0.0905		0.1	0.0			8.2%	0.0%	
2,3,4,6,7,8-HxCDF	0.00098	0.0039	--		0.00049		0.1	0.0			0.0%	0.0%	
1,2,3,7,8,9-HxCDF	0.00117	0.0047	0.568	--	<5x*B	0.568	0.568	0.1	0.1	0.1	51.3%	60.1%	
1,2,3,4,7,8-HxCDD	0.00159	0.0064	0.228	--	<5x*B	0.228	0.228	0.1	0.0	0.0	20.6%	24.1%	
1,2,3,6,7,8-HxCDD	0.00165	0.0066	--		0.000825		0.1	0.0			0.1%	0.0%	
1,2,3,7,8,9-HxCDD	0.00169	0.0068	--		0.000845		0.1	0.0			0.1%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.00107	0.0043	0.194	--	<5x*B	0.194	0.194	0.01	0.0	0.0	1.8%	2.1%	
1,2,3,4,7,8,9-HpCDF	0.00166	0.0066	--		0.00083		0.01	0.0			0.0%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.00145	0.0058	0.468	--	<5x*B	0.468	0.468	0.01	0.0	0.0	4.2%	5.0%	
OCDF	0.00051	0.0020	--		0.0002555		0.0001	0.0			0.0%	0.0%	
OCDD	0.00148	0.0059	2.23	--	<5x*B	2.23	2.23	0.0001	0.0	0.0	0.2%	0.2%	
PCB-77	0.0602	0.2408	3.61	--	<5x*B	3.61	3.61	0.0001	0.0	0.0	0.3%	0.4%	
PCB-81	0.0603	0.2412	0.689	--	<5x*B	0.689	0.689	0.0001	0.0	0.0	0.1%	0.1%	
PCB-105	0.581	2.324	15.1	--	<5x*B	15.1	15.1	0.0001	0.0	0.0	1.4%	1.6%	
PCB-114	0.578	2.312	1.08	--	<5x*B	1.08	0.54	0.0005	0.0	0.0	0.5%	0.3%	
PCB-118	0.5	2	36.9	--	<5x*B	36.9	36.9	0.0001	0.0	0.0	3.3%	3.9%	
PCB-123	2.15	8.6	E		1.075		0.0001	0.0			0.1%	0.0%	
PCB-126	0.0723	0.2892	--		0.03615		0.1	0.0			3.3%	0.0%	
PCB-156	0.194	0.776	3.38	--	<5x*B	3.38	3.38	0.0005	0.0	0.0	1.5%	1.8%	
PCB-157	0.204	0.816	0.884	--	<5x*B	0.884	0.884	0.0005	0.0	0.0	0.4%	0.5%	
PCB-167	0.188	0.752	1.13	--	<5x*B	1.13	1.13	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0358	0.1432	--		0.0179		0.01	0.0			0.2%	0.0%	
PCB-189	0.345	1.38	E		0.1725		0.0001	0.0			0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.1	0.1	0.0	0.0	0.1	0.1

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAXMB	<i>Lab Blank</i>										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0496	0.1984		--		0.0248		0.1	0.0		1.1%	0.0%
2,3,7,8-TCDD	0.065	0.26		--		0.0325		1	0.0		14.4%	0.0%
1,2,3,7,8-PeCDF	0.0452	0.1808		--		0.0226		0.05	0.0		0.5%	0.0%
2,3,4,7,8-PeCDF	0.0374	0.1496		--		0.0187		0.5	0.0		4.1%	0.0%
1,2,3,7,8-PeCDD	0.0946	0.3784		--		0.0473		1	0.0		20.9%	0.0%
1,2,3,4,7,8-HxCDF	0.0258	0.1032	0.0848	--	<5x*B	0.0848	0.0424	0.1	0.0	0.0	3.7%	4.5%
1,2,3,6,7,8-HxCDF	0.165	0.66		E		0.0825		0.1	0.0		3.6%	0.0%
2,3,4,6,7,8-HxCDF	0.0257	0.1028	0.122	--	<5x*B	0.122	0.122	0.1	0.0	0.0	5.4%	13.0%
1,2,3,7,8,9-HxCDF	0.0301	0.1204	0.529	--	<5x*B	0.529	0.529	0.1	0.1	0.1	23.4%	56.2%
1,2,3,4,7,8-HxCDD	0.0328	0.1312		--		0.0164		0.1	0.0		0.7%	0.0%
1,2,3,6,7,8-HxCDD	0.0267	0.1068		--		0.01335		0.1	0.0		0.6%	0.0%
1,2,3,7,8,9-HxCDD	0.0303	0.1212		--		0.01515		0.1	0.0		0.7%	0.0%
1,2,3,4,6,7,8-HpCDF	0.187	0.748		E		0.0935		0.01	0.0		0.4%	0.0%
1,2,3,4,7,8,9-HpCDF	0.0969	0.3876		E		0.04845		0.01	0.0		0.2%	0.0%
1,2,3,4,6,7,8-HpCDD	0.472	1.888		E		0.236		0.01	0.0		1.0%	0.0%
OCDF	0.0492	0.1968	0.542	--	<5x*B	0.542	0.542	0.0001	0.0	0.0	0.0%	0.1%
OCDD	2.16	8.64		E		1.08		0.0001	0.0		0.1%	0.0%
PCB-77	0.0986	0.3944	3.88	--	<5x*B	3.88	3.88	0.0001	0.0	0.0	0.2%	0.4%
PCB-81	0.104	0.416	0.774	--	<5x*B	0.774	0.774	0.0001	0.0	0.0	0.0%	0.1%
PCB-105	0.602	2.408	26.4	--	<5x*B	26.4	26.4	0.0001	0.0	0.0	1.2%	2.8%
PCB-114	0.982	3.928		E		0.491		0.0005	0.0		0.1%	0.0%
PCB-118	0.541	2.164	61.9	J	<5x*B	61.9	30.95	0.0001	0.0	0.0	2.7%	3.3%
PCB-123	0.608	2.432	1.38	--	<5x*B	1.38	0.69	0.0001	0.0	0.0	0.1%	0.1%
PCB-126	0.147	0.588	0.288	--	<5x*B	0.288	0.144	0.1	0.0	0.0	12.7%	15.3%
PCB-156	0.287	1.148	6.46	--	<5x*B	6.46	6.46	0.0005	0.0	0.0	1.4%	3.4%
PCB-157	0.303	1.212	1.8	--	<5x*B	1.8	1.8	0.0005	0.0	0.0	0.4%	1.0%
PCB-167	0.279	1.116	1.83	J	<5x*B	1.83	0.915	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.163	0.652		E		0.0815		0.01	0.0		0.4%	0.0%
PCB-189	0.512	2.048		E		0.256		0.0001	0.0		0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.2	0.1	0.0	0.0	0.2	0.1

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAYMB	<i>Lab Blank</i>										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0534	0.2136		--		0.0267		0.1	0.0		1.6%	0.0%
2,3,7,8-TCDD	0.0185	0.074		--		0.00925		1	0.0		5.6%	0.0%
1,2,3,7,8-PeCDF	0.0857	0.3428		--		0.04285		0.05	0.0		1.3%	0.0%
2,3,4,7,8-PeCDF	0.067	0.268		--		0.0335		0.5	0.0		10.1%	0.0%
1,2,3,7,8-PeCDD	0.116	0.464		--		0.058		1	0.1		35.1%	0.0%
1,2,3,4,7,8-HxCDF	0.0371	0.1484		--		0.01855		0.1	0.0		1.1%	0.0%
1,2,3,6,7,8-HxCDF	0.0315	0.126	0.422	--	<5x*B	0.422	0.422	0.1	0.0	0.0	25.6%	81.6%
2,3,4,6,7,8-HxCDF	0.0547	0.2188		--		0.02735		0.1	0.0		1.7%	0.0%
1,2,3,7,8,9-HxCDF	0.0811	0.3244		--		0.04055		0.1	0.0		2.5%	0.0%
1,2,3,4,7,8-HxCDD	0.0179	0.0716		--		0.00895		0.1	0.0		0.5%	0.0%
1,2,3,6,7,8-HxCDD	0.0142	0.0568		--		0.0071		0.1	0.0		0.4%	0.0%
1,2,3,7,8,9-HxCDD	0.0164	0.0656		J		0.0082		0.1	0.0		0.5%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0559	0.2236	0.455	--	<5x*B	0.455	0.455	0.01	0.0	0.0	2.8%	8.8%
1,2,3,4,7,8,9-HpCDF	0.133	0.532		--		0.0665		0.01	0.0		0.4%	0.0%
1,2,3,4,6,7,8-HpCDD	0.685	2.74		E		0.3425		0.01	0.0		2.1%	0.0%
OCDF	1.56	6.24		E		0.78		0.0001	0.0		0.1%	0.0%
OCDD	4.07	16.28		E		2.035		0.0001	0.0		0.1%	0.0%
PCB-77	0.0853	0.3412	2.71	--	<5x*B	2.71	2.71	0.0001	0.0	0.0	0.2%	0.5%
PCB-81	0.108	0.432	0.896	--	<5x*B	0.896	0.896	0.0001	0.0	0.0	0.1%	0.2%
PCB-105	0.417	1.668	11.5	--	<5x*B	11.5	11.5	0.0001	0.0	0.0	0.7%	2.2%
PCB-114	0.436	1.744	1.08	--	<5x*B	1.08	0.54	0.0005	0.0	0.0	0.3%	0.5%
PCB-118	0.44	1.76	25.9	J	<5x*B	25.9	12.95	0.0001	0.0	0.0	1.6%	2.5%
PCB-123	0.5	2	0.776	--	<5x*B	0.776	0.388	0.0001	0.0	0.0	0.1%	0.1%
PCB-126	0.133	0.532		--		0.0665		0.1	0.0		4.0%	0.0%
PCB-156	0.417	1.668	3.17	--	<5x*B	3.17	3.17	0.0005	0.0	0.0	1.0%	3.1%
PCB-157	0.431	1.724	1.11	--	<5x*B	1.11	0.555	0.0005	0.0	0.0	0.3%	0.5%
PCB-167	0.424	1.696	1.59	--	<5x*B	1.59	0.795	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.124	0.496		--		0.062		0.01	0.0		0.4%	0.0%
PCB-189	0.207	0.828		--		0.1035		0.0001	0.0		0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.2	0.0	0.0	0.0	0.2	0.1

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GBAEMB	<i>Lab Blank</i>										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0369	0.1476		--	0.01845		0.1	0.0		0.3%	0.0%	
2,3,7,8-TCDD	0.00908	0.0363		--	0.00454		1	0.0		0.8%	0.0%	
1,2,3,7,8-PeCDF	0.404	1.616		E	0.202		0.05	0.0		1.7%	0.0%	
2,3,4,7,8-PeCDF	0.0192	0.0768		--	0.0096		0.5	0.0		0.8%	0.0%	
1,2,3,7,8-PeCDD	0.654	2.616		E	0.327		1	0.3		55.4%	0.0%	
1,2,3,4,7,8-HxCDF	0.244	0.976		E	0.122		0.1	0.0		2.1%	0.0%	
1,2,3,6,7,8-HxCDF	0.00915	0.0366		--	0.004575		0.1	0.0		0.1%	0.0%	
2,3,4,6,7,8-HxCDF	0.011	0.044	0.328	--	<5x*B	0.328	0.328	0.1	0.0	0.0	5.6%	
1,2,3,7,8,9-HxCDF	0.016	0.064	0.775	--	<5x*B	0.775	0.775	0.1	0.1	0.1	13.1%	
1,2,3,4,7,8-HxCDD	0.503	2.012		E	0.2515		0.1	0.0		4.3%	0.0%	
1,2,3,6,7,8-HxCDD	0.325	1.3		E	0.1625		0.1	0.0		2.8%	0.0%	
1,2,3,7,8,9-HxCDD	0.166	0.664		EJ	0.083		0.1	0.0		1.4%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.588	2.352		EI	0.294		0.01	0.0		0.5%	0.0%	
1,2,3,4,7,8,9-HpCDF	0.292	1.168		E	0.146		0.01	0.0		0.3%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.76	3.04		E	0.38		0.01	0.0		0.6%	0.0%	
OCDF	1.39	5.56		E	0.695		0.0001	0.0		0.0%	0.0%	
OCDD	0.0502	0.2008	3.82	--	<5x*B	3.82	3.82	0.0001	0.0	0.0	0.1%	
PCB-77	0.0985	0.394	3.47	--	<5x*B	3.47	3.47	0.0001	0.0	0.0	0.1%	
PCB-81	0.0948	0.3792	0.914	--	<5x*B	0.914	0.914	0.0001	0.0	0.0	0.0%	
PCB-105	0.58	2.32	18.5	--	<5x*B	18.5	18.5	0.0001	0.0	0.0	0.3%	
PCB-114	0.606	2.424		--		0.303		0.0005	0.0		0.0%	
PCB-118	0.665	2.66	40.6	--	<5x*B	40.6	40.6	0.0001	0.0	0.0	0.7%	
PCB-123	0.756	3.024		--		0.378		0.0001	0.0		0.0%	
PCB-126	0.148	0.592	0.488	--	<5x*B	0.488	0.244	0.1	0.0	0.0	8.3%	
PCB-156	0.448	1.792	4.54	--	<5x*B	4.54	4.54	0.0005	0.0	0.0	0.4%	
PCB-157	1.45	5.8		E	0.725		0.0005	0.0		0.1%	0.0%	
PCB-167	1.84	7.36		E	0.92		0.00001	0.0		0.0%	0.0%	
PCB-169	0.466	1.864		E	0.233		0.01	0.0		0.4%	0.0%	
PCB-189	0.153	0.612		--	0.0765		0.0001	0.0		0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
0.5	0.1	0.1	0.0	0.6	0.1

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAWLC	<i>Lab Spike</i>											
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.00153	0.0061	18.6	--		18.6	18.6	0.1	1.9	1.9	0.7%	0.7%	
2,3,7,8-TCDD	0.00248	0.0099	18.9	--		18.9	18.9	1	18.9	18.9	6.9%	6.9%	
1,2,3,7,8-PeCDF	0.00191	0.0076	111	--		111	111	0.05	5.6	5.6	2.0%	2.0%	
2,3,4,7,8-PeCDF	0.00146	0.0058	98.7	--		98.7	98.7	0.5	49.4	49.4	18.1%	18.1%	
1,2,3,7,8-PeCDD	0.00252	0.0101	107	--		107	107	1	107.0	107.0	39.2%	39.2%	
1,2,3,4,7,8-HxCDF	0.0164	0.0656	90.6	--		90.6	90.6	0.1	9.1	9.1	3.3%	3.3%	
1,2,3,6,7,8-HxCDF	0.013	0.052	82.1	--		82.1	82.1	0.1	8.2	8.2	3.0%	3.0%	
2,3,4,6,7,8-HxCDF	0.0168	0.0672	90.7	--		90.7	90.7	0.1	9.1	9.1	3.3%	3.3%	
1,2,3,7,8,9-HxCDF	0.0213	0.0852	86.2	--		86.2	86.2	0.1	8.6	8.6	3.2%	3.2%	
1,2,3,4,7,8-HxCDD	0.00211	0.0084	106	--		106	106	0.1	10.6	10.6	3.9%	3.9%	
1,2,3,6,7,8-HxCDD	0.00227	0.0091	87.2	--		87.2	87.2	0.1	8.7	8.7	3.2%	3.2%	
1,2,3,7,8,9-HxCDD	0.00228	0.0091	87.9	--		87.9	87.9	0.1	8.8	8.8	3.2%	3.2%	
1,2,3,4,6,7,8-HpCDF	0.0201	0.0804	80	--		80	80	0.01	0.8	0.8	0.3%	0.3%	
1,2,3,4,7,8,9-HpCDF	0.0259	0.1036	99.9	--		99.9	99.9	0.01	1.0	1.0	0.4%	0.4%	
1,2,3,4,6,7,8-HpCDD	0.00162	0.0065	98.9	--		98.9	98.9	0.01	1.0	1.0	0.4%	0.4%	
OCDF	0.00149	0.006	203	--		203	203	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.00296	0.0118	196	--		196	196	0.0001	0.0	0.0	0.0%	0.0%	
PCB-77	0.102	0.408	219	--		219	219	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.113	0.452	229	--		229	229	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.379	1.516	212	--		212	212	0.0001	0.0	0.0	0.0%	0.0%	
PCB-114	0.376	1.504	191	--		191	191	0.0005	0.1	0.1	0.0%	0.0%	
PCB-118	0.304	1.216	234	--		234	234	0.0001	0.0	0.0	0.0%	0.0%	
PCB-123	0.342	1.368	209	--		209	209	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.157	0.628	219	--		219	219	0.1	21.9	21.9	8.0%	8.0%	
PCB-156	0.237	0.948	212	--		212	212	0.0005	0.1	0.1	0.0%	0.0%	
PCB-157	0.249	0.996	223	--		223	223	0.0005	0.1	0.1	0.0%	0.0%	
PCB-167	0.23	0.92	220	--		220	220	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.095	0.38	202	--		202	202	0.01	2.0	2.0	0.7%	0.7%	
PCB-189	0.103	0.412	204	--		204	204	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
248.6	248.6	24.4	24.4	272.9	272.9

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAXLCS	<i>Lab Spike</i>										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0518	0.2072	19.1	--		19.1	19.1	0.1	1.9	1.9	0.8%	0.8%
2,3,7,8-TCDD	0.049	0.196	16.7	--		16.7	16.7	1	16.7	16.7	6.7%	6.7%
1,2,3,7,8-PeCDF	0.0708	0.2832	106	--		106	106	0.05	5.3	5.3	2.1%	2.1%
2,3,4,7,8-PeCDF	0.0518	0.2072	94.3	--		94.3	94.3	0.5	47.2	47.2	18.8%	18.8%
1,2,3,7,8-PeCDD	0.0658	0.2632	93.4	--		93.4	93.4	1	93.4	93.4	37.3%	37.3%
1,2,3,4,7,8-HxCDF	0.0437	0.1748	91.5	--		91.5	91.5	0.1	9.2	9.2	3.7%	3.7%
1,2,3,6,7,8-HxCDF	0.0381	0.1524	79.8	--		79.8	79.8	0.1	8.0	8.0	3.2%	3.2%
2,3,4,6,7,8-HxCDF	0.0429	0.1716	88.1	--		88.1	88.1	0.1	8.8	8.8	3.5%	3.5%
1,2,3,7,8,9-HxCDF	0.0494	0.1976	84.1	--		84.1	84.1	0.1	8.4	8.4	3.4%	3.4%
1,2,3,4,7,8-HxCDD	0.0101	0.0404	92.2	--		92.2	92.2	0.1	9.2	9.2	3.7%	3.7%
1,2,3,6,7,8-HxCDD	0.00864	0.0346	85	--		85	85	0.1	8.5	8.5	3.4%	3.4%
1,2,3,7,8,9-HxCDD	0.00963	0.0385	91.6	--		91.6	91.6	0.1	9.2	9.2	3.7%	3.7%
1,2,3,4,6,7,8-HpCDF	0.0624	0.2496	76.3	--		76.3	76.3	0.01	0.8	0.8	0.3%	0.3%
1,2,3,4,7,8,9-HpCDF	0.0843	0.3372	97	--		97	97	0.01	1.0	1.0	0.4%	0.4%
1,2,3,4,6,7,8-HpCDD	0.0101	0.0404	96	--		96	96	0.01	1.0	1.0	0.4%	0.4%
OCDF	0.0263	0.1052	188	--		188	188	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.00166	0.0066	191	--		191	191	0.0001	0.0	0.0	0.0%	0.0%
PCB-77	0.123	0.492	195	--		195	195	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.169	0.676	204	--		204	204	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.866	3.464	246	--		246	246	0.0001	0.0	0.0	0.0%	0.0%
PCB-114	0.86	3.44	225	--		225	225	0.0005	0.1	0.1	0.0%	0.0%
PCB-118	0.752	3.008	288	J	<5x*B	288	144	0.0001	0.0	0.0	0.0%	0.0%
PCB-123	0.846	3.384	232	--		232	232	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.183	0.732	194	--		194	194	0.1	19.4	19.4	7.8%	7.8%
PCB-156	0.271	1.084	209	--		209	209	0.0005	0.1	0.1	0.0%	0.0%
PCB-157	0.286	1.144	222	--		222	222	0.0005	0.1	0.1	0.0%	0.0%
PCB-167	0.264	1.056	252	J		252	126	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0812	0.3248	198	--		198	198	0.01	2.0	2.0	0.8%	0.8%
PCB-189	0.136	0.544	211	--		211	211	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
228.4	228.4	21.8	21.8	250.3	250.3

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GAAYLCS	<i>Lab Spike</i>		Quality Control Results								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0384	0.1536	16.9	--		16.9	16.9	0.1	1.7	1.7	0.6%	0.7%
2,3,7,8-TCDD	0.0401	0.1604	17.1	--		17.1	17.1	1	17.1	17.1	6.5%	6.6%
1,2,3,7,8-PeCDF	0.0475	0.19	107	--		107	107	0.05	5.4	5.4	2.0%	2.1%
2,3,4,7,8-PeCDF	0.0319	0.1276	90.4	--		90.4	90.4	0.5	45.2	45.2	17.1%	17.3%
1,2,3,7,8-PeCDD	0.0709	0.2836	108	--		108	108	1	108.0	108.0	41.0%	41.4%
1,2,3,4,7,8-HxCDF	0.0125	0.05	91.9	--		91.9	91.9	0.1	9.2	9.2	3.5%	3.5%
1,2,3,6,7,8-HxCDF	0.0107	0.0428	80.8	--		80.8	80.8	0.1	8.1	8.1	3.1%	3.1%
2,3,4,6,7,8-HxCDF	0.014	0.056	88.4	--		88.4	88.4	0.1	8.8	8.8	3.4%	3.4%
1,2,3,7,8,9-HxCDF	0.0199	0.0796	86.3	--		86.3	86.3	0.1	8.6	8.6	3.3%	3.3%
1,2,3,4,7,8-HxCDD	0.00778	0.0311	111	--		111	111	0.1	11.1	11.1	4.2%	4.3%
1,2,3,6,7,8-HxCDD	0.0056	0.0224	76.8	--		76.8	76.8	0.1	7.7	7.7	2.9%	3.0%
1,2,3,7,8,9-HxCDD	0.00667	0.0267	62	J		62	31	0.1	6.2	3.1	2.4%	1.2%
1,2,3,4,6,7,8-HpCDF	0.0805	0.322	80.6	--		80.6	80.6	0.01	0.8	0.8	0.3%	0.3%
1,2,3,4,7,8,9-HpCDF	0.163	0.652	99.2	--		99.2	99.2	0.01	1.0	1.0	0.4%	0.4%
1,2,3,4,6,7,8-HpCDD	0.00539	0.0216	94.5	--		94.5	94.5	0.01	0.9	0.9	0.4%	0.4%
OCDF	0.0185	0.074	232	--		232	232	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.00701	0.0280	186	--		186	186	0.0001	0.0	0.0	0.0%	0.0%
PCB-77	0.064	0.256	213	--		213	213	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.0907	0.3628	218	--		218	218	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	1.23	4.92	237	--		237	237	0.0001	0.0	0.0	0.0%	0.0%
PCB-114	1.28	5.12	217	--		217	217	0.0005	0.1	0.1	0.0%	0.0%
PCB-118	1.38	5.52	258	J		258	129	0.0001	0.0	0.0	0.0%	0.0%
PCB-123	1.57	6.28	233	--		233	233	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	0.18	0.72	213	--		213	213	0.1	21.3	21.3	8.1%	8.2%
PCB-156	0.818	3.272	211	--		211	211	0.0005	0.1	0.1	0.0%	0.0%
PCB-157	0.846	3.384	217	--		217	217	0.0005	0.1	0.1	0.0%	0.0%
PCB-167	0.832	3.328	212	--		212	212	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0912	0.3648	213	--		213	213	0.01	2.1	2.1	0.8%	0.8%
PCB-189	0.174	0.696	209	--		209	209	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
239.8	236.7	23.9	23.9	263.7	260.6

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	GBAELCS	<i>Lab Spike</i>											
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.037	0.148	20.6	--		20.6	20.6	0.1	2.1	2.1	0.7%	0.7%	
2,3,7,8-TCDD	0.0134	0.0536	20.1	--		20.1	20.1	1	20.1	20.1	7.1%	7.2%	
1,2,3,7,8-PeCDF	0.0924	0.3696	124	--		124	124	0.05	6.2	6.2	2.2%	2.2%	
2,3,4,7,8-PeCDF	0.0496	0.1984	103	--		103	103	0.5	51.5	51.5	18.3%	18.5%	
1,2,3,7,8-PeCDD	0.0571	0.2284	110	--		110	110	1	110.0	110.0	39.1%	39.4%	
1,2,3,4,7,8-HxCDF	0.0669	0.2676	95.5	--		95.5	95.5	0.1	9.6	9.6	3.4%	3.4%	
1,2,3,6,7,8-HxCDF	0.077	0.308	92.3	--		92.3	92.3	0.1	9.2	9.2	3.3%	3.3%	
2,3,4,6,7,8-HxCDF	0.103	0.412	104	--		104	104	0.1	10.4	10.4	3.7%	3.7%	
1,2,3,7,8,9-HxCDF	0.179	0.716	90.6	--		90.6	90.6	0.1	9.1	9.1	3.2%	3.3%	
1,2,3,4,7,8-HxCDD	0.0278	0.1112	100	--		100	100	0.1	10.0	10.0	3.6%	3.6%	
1,2,3,6,7,8-HxCDD	0.0237	0.0948	89.3	--		89.3	89.3	0.1	8.9	8.9	3.2%	3.2%	
1,2,3,7,8,9-HxCDD	0.0264	0.1056	52	J		52	26	0.1	5.2	2.6	1.9%	0.9%	
1,2,3,4,6,7,8-HpCDF	0.0703	0.2812	82.1	--		82.1	82.1	0.01	0.8	0.8	0.3%	0.3%	
1,2,3,4,7,8,9-HpCDF	0.144	0.576	94.3	--		94.3	94.3	0.01	0.9	0.9	0.3%	0.3%	
1,2,3,4,6,7,8-HpCDD	0.0988	0.3952	98.9	--		98.9	98.9	0.01	1.0	1.0	0.4%	0.4%	
OCDF	0.157	0.628	177	--		177	177	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.126	0.504	208	--		208	208	0.0001	0.0	0.0	0.0%	0.0%	
PCB-77	0.0923	0.3692	234	--		234	234	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0884	0.3536	226	--		226	226	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.831	3.324	238	--		238	238	0.0001	0.0	0.0	0.0%	0.0%	
PCB-114	0.869	3.476	229	--		229	229	0.0005	0.1	0.1	0.0%	0.0%	
PCB-118	0.954	3.816	246	--		246	246	0.0001	0.0	0.0	0.0%	0.0%	
PCB-123	1.08	4.32	225	--		225	225	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.172	0.688	238	--		238	238	0.1	23.8	23.8	8.5%	8.5%	
PCB-156	1.69	6.76	223	--		223	223	0.0005	0.1	0.1	0.0%	0.0%	
PCB-157	1.75	7	227	--		227	227	0.0005	0.1	0.1	0.0%	0.0%	
PCB-167	1.72	6.88	229	--		229	229	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.121	0.484	236	--		236	236	0.01	2.4	2.4	0.8%	0.9%	
PCB-189	0.216	0.864	218	--		218	218	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
255.0	252.4	26.6	26.6	281.7	279.1

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	113	PE Clean	Ref-F-22										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.737	2.948		--		0.3685		0.1	0.0		3.2%	0.0%	
2,3,7,8-TCDD	0.0986	0.3944		--		0.0493		1	0.0		4.3%	0.0%	
1,2,3,7,8-PeCDF	0.213	0.852		--		0.1065		0.05	0.0		0.5%	0.0%	
2,3,4,7,8-PeCDF	0.156	0.624		--		0.078		0.5	0.0		3.4%	0.0%	
1,2,3,7,8-PeCDD	0.0934	0.3736		--		0.0467		1	0.0		4.1%	0.0%	
1,2,3,4,7,8-HxCDF	1.14	4.56		D		0.285		0.1	0.0		2.5%	0.0%	
1,2,3,6,7,8-HxCDF	0.513	2.052		E		0.2565		0.1	0.0		2.2%	0.0%	
2,3,4,6,7,8-HxCDF	0.538	2.152		--		0.269		0.1	0.0		2.4%	0.0%	
1,2,3,7,8,9-HxCDF	0.976	3.904		--	<5x*B	0.488		0.1	0.0		4.3%	0.0%	
1,2,3,4,7,8-HxCDD	0.14	0.56	1	B	<5x*B	1	0.5	0.1	0.1	0.1	8.7%	7.9%	
1,2,3,6,7,8-HxCDD	0.121	0.484	1.71	I		1.71	1.71	0.1	0.2	0.2	15.0%	27.1%	
1,2,3,7,8,9-HxCDD	0.571	2.284		E		0.2855		0.1	0.0		2.5%	0.0%	
1,2,3,4,6,7,8-HpCDF	31.2	124.8		D	<5x*B	7.8		0.01	0.1		6.8%	0.0%	
1,2,3,4,7,8,9-HpCDF	2.61	10.44		E		1.305		0.01	0.0		1.1%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.471	1.884	33.2	--		33.2	33.2	0.01	0.3	0.3	29.0%	52.6%	
OCDF	0.67	2.68	45	--		45	45	0.0001	0.0	0.0	0.4%	0.7%	
OCDD	0.676	2.704	271	--		271	271	0.0001	0.0	0.0	2.4%	4.3%	
PCB-77	4.02	16.08		E	<5x*B	2.01		0.0001	0.0		0.0%	0.0%	
PCB-81	0.116	0.464	0.382	B	<5x*B	0.382	0.0955	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.77	3.08	83.9	--		83.9	83.9	0.0001	0.0	0.0	0.7%	1.3%	
PCB-114	0.765	3.06	4.52	B	<5x*B	4.52	2.26	0.0005	0.0	0.0	0.2%	0.2%	
PCB-118	0.67	2.68	189	--		189	189	0.0001	0.0	0.0	1.7%	3.0%	
PCB-123	0.754	3.016		--		0.377		0.0001	0.0		0.0%	0.0%	
PCB-126	0.666	2.664		E		0.333		0.1	0.0		2.9%	0.0%	
PCB-156	0.328	1.312	29.1	--		29.1	29.1	0.0005	0.0	0.0	1.3%	2.3%	
PCB-157	0.346	1.384	7.55	--		7.55	7.55	0.0005	0.0	0.0	0.3%	0.6%	
PCB-167	0.319	1.276	12	--		12	12	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0374	0.1496		--		0.0187		0.01	0.0		0.0%	0.0%	
PCB-189	1.91	7.64		E		0.955		0.0001	0.0		0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.1	0.6	0.1	0.0	1.1	0.6

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	172	PE Clean		Ref-F-23									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0008	0.0032		--	0.000399		0.1	0.0			0.0%	0.0%	
2,3,7,8-TCDD	0.00265	0.0106		--	0.001325		1	0.0			0.0%	0.0%	
1,2,3,7,8-PeCDF	0.00633	0.0253		--	0.003165		0.05	0.0			0.0%	0.0%	
2,3,4,7,8-PeCDF	0.115	0.46		E	0.0575		0.5	0.0			1.0%	0.0%	
1,2,3,7,8-PeCDD	0.003	0.012	0.513	--	0.513	0.513	1	0.5	0.5	0.5	17.4%	18.6%	
1,2,3,4,7,8-HxCDF	0.0959	0.3836	0.516	--	0.516	0.516	0.1	0.1	0.1	0.1	1.7%	1.9%	
1,2,3,6,7,8-HxCDF	0.075	0.3	0.414	--	0.414	0.414	0.1	0.0	0.0	0.0	1.4%	1.5%	
2,3,4,6,7,8-HxCDF	0.0918	0.3672	1.07	--	1.07	1.07	0.1	0.1	0.1	0.1	3.6%	3.9%	
1,2,3,7,8,9-HxCDF	0.316	1.264		E	<5x*B	0.158		0.1	0.0			0.5%	0.0%
1,2,3,4,7,8-HxCDD	0.00078	0.0031	0.942	--	0.942	0.942	0.1	0.1	0.1	0.1	3.2%	3.4%	
1,2,3,6,7,8-HxCDD	0.00083	0.0033	2.39	--	2.39	2.39	0.1	0.2	0.2	0.2	8.1%	8.6%	
1,2,3,7,8,9-HxCDD	0.00084	0.0034	1.07	--	1.07	1.07	0.1	0.1	0.1	0.1	3.6%	3.9%	
1,2,3,4,6,7,8-HpCDF	0.0501	0.2004	9.53	--	9.53	9.53	0.01	0.1	0.1	0.1	3.2%	3.4%	
1,2,3,4,7,8,9-HpCDF	0.878	3.512		E	0.439		0.01	0.0			0.1%	0.0%	
1,2,3,4,6,7,8-HpCDD	0.111	0.444	137	--	137	137	0.01	1.4	1.4	1.4	46.4%	49.6%	
OCDF	0.00802	0.0321	41.1	--	41.1	41.1	0.0001	0.0	0.0	0.0	0.1%	0.1%	
OCDD	0.0166	0.0664	1360	CJ	1360	680	0.0001	0.1	0.1	0.1	4.6%	2.5%	
PCB-77	0.0942	0.3768	3.5	B	<5x*B	3.5	1.75	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.109	0.436	0.48	B	<5x*B	0.48	0.24	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.189	0.756	89	B	<5x*B	89	44.5	0.0001	0.0	0.0	0.3%	0.2%	
PCB-114	0.188	0.752	4.34	--	4.34	4.34	0.0005	0.0	0.0	0.0	0.1%	0.1%	
PCB-118	0.163	0.652	198	B	<5x*B	198	99	0.0001	0.0	0.0	0.7%	0.4%	
PCB-123	0.183	0.732	4.89	B	<5x*B	4.89	2.445	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.107	0.428	0.908	BJ	<5x*B	0.908	0.454	0.1	0.1	0.0	3.1%	1.6%	
PCB-156	0.13	0.52	32.1	B	<5x*B	32.1	16.05	0.0005	0.0	0.0	0.5%	0.3%	
PCB-157	0.137	0.548	7.88	B	<5x*B	7.88	3.94	0.0005	0.0	0.0	0.1%	0.1%	
PCB-167	0.126	0.504	9.12	B	<5x*B	9.12	4.56	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0475	0.19		--	0.02375		0.01	0.0			0.0%	0.0%	
PCB-189	0.217	0.868	2.24	--	2.24	2.24	0.0001	0.0	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
2.8	2.7	0.1	0.1	3.0	2.8

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	256	PE Clean	Ref-F-24										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0108	0.0432	0.129	NJ		0.0645		0.1	0.0		0.5%	0.0%	
2,3,7,8-TCDD	0.00188	0.0075		--		0.00094		1	0.0		0.1%	0.0%	
1,2,3,7,8-PeCDF	0.179	0.716		ED		0.04475		0.05	0.0		0.2%	0.0%	
2,3,4,7,8-PeCDF	0.209	0.836		E		0.1045		0.5	0.1		4.4%	0.0%	
1,2,3,7,8-PeCDD	0.0421	0.1684		--		0.02105		1	0.0		1.8%	0.0%	
1,2,3,4,7,8-HxCDF	0.042	0.168	0.513	--		0.513	0.513	0.1	0.1	0.1	4.3%	5.0%	
1,2,3,6,7,8-HxCDF	0.387	1.548		E	<5x*B	0.1935		0.1	0.0		1.6%	0.0%	
2,3,4,6,7,8-HxCDF	0.0434	0.1736		--		0.0217		0.1	0.0		0.2%	0.0%	
1,2,3,7,8,9-HxCDF	0.0481	0.1924	0.369	--		0.369	0.369	0.1	0.0	0.0	3.1%	3.6%	
1,2,3,4,7,8-HxCDD	0.0109	0.0436	0.999	--		0.999	0.999	0.1	0.1	0.1	8.5%	9.8%	
1,2,3,6,7,8-HxCDD	0.00824	0.033	1.67	--		1.67	1.67	0.1	0.2	0.2	14.1%	16.4%	
1,2,3,7,8,9-HxCDD	0.00965	0.0386	1.18	J		1.18	0.59	0.1	0.1	0.1	10.0%	5.8%	
1,2,3,4,6,7,8-HpCDF	0.0259	0.1036	5.76	--		5.76	5.76	0.01	0.1	0.1	4.9%	5.7%	
1,2,3,4,7,8,9-HpCDF	0.0384	0.1536	0.51	--		0.51	0.51	0.01	0.0	0.0	0.4%	0.5%	
1,2,3,4,6,7,8-HpCDD	0.0376	0.1504	38.3	--		38.3	38.3	0.01	0.4	0.4	32.4%	37.7%	
OCDF	0.0137	0.0548	8.95	--		8.95	8.95	0.0001	0.0	0.0	0.1%	0.1%	
OCDD	0.0154	0.0616	291	--		291	291	0.0001	0.0	0.0	2.5%	2.9%	
PCB-77	0.0433	0.1732	4.24	B	<5x*B	4.24	2.12	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0532	0.2128	0.499	B	<5x*B	0.499	0.2495	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.298	1.192	77.5	--		77.5	77.5	0.0001	0.0	0.0	0.7%	0.8%	
PCB-114	0.311	1.244	4.35	B	<5x*B	4.35	2.175	0.0005	0.0	0.0	0.2%	0.1%	
PCB-118	0.328	1.312	163	--		163	163	0.0001	0.0	0.0	1.4%	1.6%	
PCB-123	0.373	1.492	3.7	BJ	<5x*B	3.7	1.85	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.0986	0.3944	0.837	--		0.837	0.837	0.1	0.1	0.1	7.1%	8.2%	
PCB-156	0.151	0.604	25.4	--		25.4	25.4	0.0005	0.0	0.0	1.1%	1.2%	
PCB-157	0.156	0.624	6.78	--		6.78	6.78	0.0005	0.0	0.0	0.3%	0.3%	
PCB-167	0.154	0.616	10.9	--		10.9	10.9	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0411	0.1644	0.172	--		0.172	0.172	0.01	0.0	0.0	0.1%	0.2%	
PCB-189	0.227	0.908	1.88	--		1.88	1.88	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.1	0.9	0.1	0.1	1.2	1.0

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	339	PE Clean	Ref-F-27										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0504	0.2016		--		0.0252		0.1	0.0		0.1%	0.0%	
2,3,7,8-TCDD	0.0161	0.0644		--		0.00805		1	0.0		0.4%	0.0%	
1,2,3,7,8-PeCDF	0.322	1.288		E		0.161		0.05	0.0		0.4%	0.0%	
2,3,4,7,8-PeCDF	0.0359	0.1436	0.273	--		0.273	0.273	0.5	0.1	0.1	6.8%	7.9%	
1,2,3,7,8-PeCDD	0.0443	0.1772	0.767	--		0.767	0.767	1	0.8	0.8	38.2%	44.1%	
1,2,3,4,7,8-HxCDF	0.111	0.444	0.627	--		0.627	0.627	0.1	0.1	0.1	3.1%	3.6%	
1,2,3,6,7,8-HxCDF	0.0925	0.37	0.559	I		0.559	0.559	0.1	0.1	0.1	2.8%	3.2%	
2,3,4,6,7,8-HxCDF	0.144	0.576	0.56	B	<5x*B	0.56	0.14	0.1	0.1	0.0	2.8%	0.8%	
1,2,3,7,8,9-HxCDF	0.212	0.848	0.568	B	<5x*B	0.568	0.142	0.1	0.1	0.0	2.8%	0.8%	
1,2,3,4,7,8-HxCDD	0.749	2.996		E		0.3745		0.1	0.0		1.9%	0.0%	
1,2,3,6,7,8-HxCDD	0.0416	0.1664	1.66	I		1.66	1.66	0.1	0.2	0.2	8.3%	9.6%	
1,2,3,7,8,9-HxCDD	0.0469	0.1876	0.788	IJ		0.788	0.394	0.1	0.1	0.0	3.9%	2.3%	
1,2,3,4,6,7,8-HpCDF	5.91	23.64		D		1.4775		0.01	0.0		0.7%	0.0%	
1,2,3,4,7,8,9-HpCDF	0.0783	0.3132	0.579	--		0.579	0.579	0.01	0.0	0.0	0.3%	0.3%	
1,2,3,4,6,7,8-HpCDD	0.126	0.504	36.7	--		36.7	36.7	0.01	0.4	0.4	18.3%	21.1%	
OCDF	0.0259	0.1036	7.13	J		7.13	3.565	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0841	0.3364	296	--		296	296	0.0001	0.0	0.0	1.5%	1.7%	
PCB-77	0.0839	0.3356	9.03	B	<5x*B	9.03	4.515	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0815	0.326	0.676	B	<5x*B	0.676	0.338	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.444	1.776	85.8	B	<5x*B	85.8	42.9	0.0001	0.0	0.0	0.4%	0.2%	
PCB-114	0.464	1.856	5.07	--		5.07	5.07	0.0005	0.0	0.0	0.1%	0.1%	
PCB-118	0.497	1.988	187	B	<5x*B	187	93.5	0.0001	0.0	0.0	0.9%	0.5%	
PCB-123	0.565	2.26		--		0.2825		0.0001	0.0		0.0%	0.0%	
PCB-126	0.175	0.7	1.08	BJ	<5x*B	1.08	0.54	0.1	0.1	0.1	5.4%	3.1%	
PCB-156	1.22	4.88	21.3	B	<5x*B	21.3	10.65	0.0005	0.0	0.0	0.5%	0.3%	
PCB-157	1.26	5.04	5.59	--		5.59	5.59	0.0005	0.0	0.0	0.1%	0.2%	
PCB-167	1.24	4.96	12.7	--		12.7	12.7	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.0796	0.3184	0.226	J		0.226	0.0565	0.01	0.0	0.0	0.1%	0.0%	
PCB-189	0.881	3.524	1.88	--		1.88	0.94	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.9	1.7	0.2	0.1	2.0	1.7

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	681	PE Clean	blank										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0216	0.0864	0.194	NJ		0.097		0.1	0.0		0.4%	0.0%	
2,3,7,8-TCDD	0.00469	0.0188		--		0.002345		1	0.0		0.1%	0.0%	
1,2,3,7,8-PeCDF	0.0726	0.2904	0.411	--		0.411	0.411	0.05	0.0	0.0	0.8%	0.9%	
2,3,4,7,8-PeCDF	0.0458	0.1832	0.368	--		0.368	0.368	0.5	0.2	0.2	7.1%	7.7%	
1,2,3,7,8-PeCDD	0.0173	0.0692	0.845	--		0.845	0.845	1	0.8	0.8	32.5%	35.4%	
1,2,3,4,7,8-HxCDF	0.0282	0.1128	0.711	--		0.711	0.711	0.1	0.1	0.1	2.7%	3.0%	
1,2,3,6,7,8-HxCDF	0.0355	0.142	0.497	--		0.497	0.497	0.1	0.0	0.0	1.9%	2.1%	
2,3,4,6,7,8-HxCDF	0.0387	0.1548	0.585	B	<5x*B	0.585	0.2925	0.1	0.1	0.0	2.3%	1.2%	
1,2,3,7,8,9-HxCDF	0.0526	0.2104	0.611	B	<5x*B	0.611	0.3055	0.1	0.1	0.0	2.4%	1.3%	
1,2,3,4,7,8-HxCDD	0.00953	0.0381	0.989	--		0.989	0.989	0.1	0.1	0.1	3.8%	4.1%	
1,2,3,6,7,8-HxCDD	0.00837	0.0335	2.03	--		2.03	2.03	0.1	0.2	0.2	7.8%	8.5%	
1,2,3,7,8,9-HxCDD	1.24	4.96		EJ		0.62		0.1	0.1		2.4%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.0329	0.1316	5.7	I		5.7	5.7	0.01	0.1	0.1	2.2%	2.4%	
1,2,3,4,7,8,9-HpCDF	0.0472	0.1888	0.576	--		0.576	0.576	0.01	0.0	0.0	0.2%	0.2%	
1,2,3,4,6,7,8-HpCDD	0.0335	0.134	57.8	--		57.8	57.8	0.01	0.6	0.6	22.2%	24.2%	
OCDF	0.0154	0.0616	8.8	--		8.8	8.8	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0217	0.0868	638	--		638	638	0.0001	0.1	0.1	2.5%	2.7%	
PCB-77	0.0498	0.1992	10.3	B	<5x*B	10.3	5.15	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0495	0.198	1.03	BJ	<5x*B	1.03	0.515	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	2.56	10.24	139	--		139	139	0.0001	0.0	0.0	0.5%	0.6%	
PCB-114	2.67	10.68	7.61	--		7.61	3.805	0.0005	0.0	0.0	0.2%	0.1%	
PCB-118	3.06	12.24	308	--		308	308	0.0001	0.0	0.0	1.2%	1.3%	
PCB-123	3.48	13.92	7.52	--		7.52	3.76	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.143	0.572	1.48	BJ	<5x*B	1.48	0.74	0.1	0.1	0.1	5.7%	3.1%	
PCB-156	0.323	1.292	43.3	--		43.3	43.3	0.0005	0.0	0.0	0.8%	0.9%	
PCB-157	0.334	1.336	11	--		11	11	0.0005	0.0	0.0	0.2%	0.2%	
PCB-167	0.329	1.316	17.3	--		17.3	17.3	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.481	1.924		E		0.2405		0.01	0.0		0.1%	0.0%	
PCB-189	0.243	0.972	2.91	--		2.91	2.91	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
2.4	2.2	0.2	0.1	2.6	2.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	263	PE Low Std		PEL-F-11												
Analyte	EDL	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ				
		QL	Conc	Flag	Full		Quant	Full		Quant	Full	Quant				
2,3,7,8-TCDF	0.00134	0.0054	3.84	NJ		1.92		0.1		0.2		0.3%	0.0%			
2,3,7,8-TCDD	0.00329	0.0132	10.8	--		10.8	10.8	1		10.8	10.8	15.7%	15.8%			
1,2,3,7,8-PeCDF	0.0114	0.0456	106	--		106	106	0.05		5.3	5.3	7.7%	7.8%			
2,3,4,7,8-PeCDF	0.00749	0.03	27.4	--		27.4	27.4	0.5		13.7	13.7	19.9%	20.0%			
1,2,3,7,8-PeCDD	0.003	0.012	18	--		18	18	1		18.0	18.0	26.1%	26.3%			
1,2,3,4,7,8-HxCDF	0.0573	0.2292	27.9	--		27.9	27.9	0.1		2.8	2.8	4.1%	4.1%			
1,2,3,6,7,8-HxCDF	0.0488	0.1952	1.88	--		1.88	1.88	0.1		0.2	0.2	0.3%	0.3%			
2,3,4,6,7,8-HxCDF	0.0503	0.2012	65.7	--		65.7	65.7	0.1		6.6	6.6	9.5%	9.6%			
1,2,3,7,8,9-HxCDF	0.0655	0.262	62	--		62	62	0.1		6.2	6.2	9.0%	9.1%			
1,2,3,4,7,8-HxCDD	0.0015	0.006	9.96	--		9.96	9.96	0.1		1.0	1.0	1.4%	1.5%			
1,2,3,6,7,8-HxCDD	0.00171	0.0068	13.7	--		13.7	13.7	0.1		1.4	1.4	2.0%	2.0%			
1,2,3,7,8,9-HxCDD	0.00168	0.0067	2.35	--		2.35	2.35	0.1		0.2	0.2	0.3%	0.3%			
1,2,3,4,6,7,8-HpCDF	0.0324	0.1296	6.66	--		6.66	6.66	0.01		0.1	0.1	0.1%	0.1%			
1,2,3,4,7,8,9-HpCDF	0.0687	0.2748	70.9	--		70.9	70.9	0.01		0.7	0.7	1.0%	1.0%			
1,2,3,4,6,7,8-HpCDD	0.0618	0.2472	99.4	--		99.4	99.4	0.01		1.0	1.0	1.4%	1.5%			
OCDF	0.0145	0.058	25.9	--		25.9	25.9	0.0001		0.0	0.0	0.0%	0.0%			
OCDD	0.00527	0.0211	375	--		375	375	0.0001		0.0	0.0	0.1%	0.1%			
PCB-77	0.0538	0.2152	15.9	B	<5x*B	15.9	7.95	0.0001		0.0	0.0	0.0%	0.0%			
PCB-81	0.0578	0.2312	0.85	B	<5x*B	0.85	0.425	0.0001		0.0	0.0	0.0%	0.0%			
PCB-105	1.12	4.48	615	CJ		615	307.5	0.0001		0.1	0.0	0.1%	0.0%			
PCB-114	1.12	4.48	30.1	--		30.1	30.1	0.0005		0.0	0.0	0.0%	0.0%			
PCB-118	0.933	3.732	1190	CJ		1190	595	0.0001		0.1	0.1	0.2%	0.1%			
PCB-123	1.05	4.2	22.5	--		22.5	22.5	0.0001		0.0	0.0	0.0%	0.0%			
PCB-126	0.189	0.756	3.62	J		3.62	1.81	0.1		0.4	0.2	0.5%	0.3%			
PCB-156	0.274	1.096	180	--		180	180	0.0005		0.1	0.1	0.1%	0.1%			
PCB-157	0.289	1.156	46.8	--		46.8	46.8	0.0005		0.0	0.0	0.0%	0.0%			
PCB-167	0.266	1.064	51.5	--		51.5	51.5	0.00001		0.0	0.0	0.0%	0.0%			
PCB-169	1.49	5.96	E			0.745		0.01		0.0		0.0%	0.0%			
PCB-189	0.0911	0.3644	7.72	--		7.72	7.72	0.0001		0.0	0.0	0.0%	0.0%			

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
68.2	68.0	0.7	0.4	68.8	68.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	498	PE Low Std	PEL-F-12										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.055	0.22	3.82	NJ		1.91		0.1	0.2		0.3%	0.0%	
2,3,7,8-TCDD	0.023	0.092	10.6	--		10.6	10.6	1	10.6	10.6	14.8%	14.9%	
1,2,3,7,8-PeCDF	0.0696	0.2784	107	--		107	107	0.05	5.4	5.4	7.5%	7.5%	
2,3,4,7,8-PeCDF	0.0558	0.2232	30.1	--		30.1	30.1	0.5	15.1	15.1	21.1%	21.2%	
1,2,3,7,8-PeCDD	0.0155	0.062	18.5	--		18.5	18.5	1	18.5	18.5	25.9%	26.1%	
1,2,3,4,7,8-HxCDF	0.0407	0.1628	29.3	--		29.3	29.3	0.1	2.9	2.9	4.1%	4.1%	
1,2,3,6,7,8-HxCDF	0.0397	0.1588	1.85	B	<5x*B	1.85	0.925	0.1	0.2	0.1	0.3%	0.1%	
2,3,4,6,7,8-HxCDF	0.0571	0.2284	72.3	--		72.3	72.3	0.1	7.2	7.2	10.1%	10.2%	
1,2,3,7,8,9-HxCDF	0.101	0.404	62.9	--		62.9	62.9	0.1	6.3	6.3	8.8%	8.9%	
1,2,3,4,7,8-HxCDD	0.0416	0.1664	10.4	--		10.4	10.4	0.1	1.0	1.0	1.5%	1.5%	
1,2,3,6,7,8-HxCDD	0.0349	0.1396	14.5	--		14.5	14.5	0.1	1.5	1.5	2.0%	2.0%	
1,2,3,7,8,9-HxCDD	0.0394	0.1576	1.65	J		1.65	0.825	0.1	0.2	0.1	0.2%	0.1%	
1,2,3,4,6,7,8-HpCDF	0.0994	0.3976	10.3	--		10.3	10.3	0.01	0.1	0.1	0.1%	0.1%	
1,2,3,4,7,8,9-HpCDF	0.241	0.964	65.2	--		65.2	65.2	0.01	0.7	0.7	0.9%	0.9%	
1,2,3,4,6,7,8-HpCDD	0.0729	0.2916	98	--		98	98	0.01	1.0	1.0	1.4%	1.4%	
OCDF	0.13	0.52	41	--		41	41	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.129	0.516	485	--		485	485	0.0001	0.0	0.0	0.1%	0.1%	
PCB-77	0.0535	0.214	16.2	--		16.2	16.2	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0605	0.242	0.859	B	<5x*B	0.859	0.4295	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	1.96	7.84	636	CJ		636	318	0.0001	0.1	0.0	0.1%	0.0%	
PCB-114	2.04	8.16	32.4	--		32.4	32.4	0.0005	0.0	0.0	0.0%	0.0%	
PCB-118	2.33	9.32	1330	CJ		1330	665	0.0001	0.1	0.1	0.2%	0.1%	
PCB-123	2.65	10.6	18.7	J		18.7	9.35	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.485	1.94	3.54	--		3.54	3.54	0.1	0.4	0.4	0.5%	0.5%	
PCB-156	0.226	0.904	188	--		188	188	0.0005	0.1	0.1	0.1%	0.1%	
PCB-157	0.234	0.936	42.2	--		42.2	42.2	0.0005	0.0	0.0	0.0%	0.0%	
PCB-167	0.23	0.92	62.7	--		62.7	62.7	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	1.07	4.28	E			0.535		0.01	0.0		0.0%	0.0%	
PCB-189	0.119	0.476	7.85	--		7.85	7.85	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
70.8	70.4	0.7	0.6	71.5	71.0

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	757-R	PE Low Std	PEL-F-7	Replacement sample for (757) which was lost by MRI; EPA batch C, sent w/ off-post									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0443	0.1772	3.91	NJ		1.955		0.1	0.2		0.3%	0.0%	
2,3,7,8-TCDD	0.0228	0.0912	11.8	--		11.8	11.8	1	11.8	11.8	16.1%	16.2%	
1,2,3,7,8-PeCDF	0.0312	0.1248	113	--		113	113	0.05	5.7	5.7	7.7%	7.8%	
2,3,4,7,8-PeCDF	0.0236	0.0944	30.1	--		30.1	30.1	0.5	15.1	15.1	20.6%	20.7%	
1,2,3,7,8-PeCDD	0.0151	0.0604	18	--		18	18	1	18.0	18.0	24.6%	24.8%	
1,2,3,4,7,8-HxCDF	0.0696	0.2784	30.1	--		30.1	30.1	0.1	3.0	3.0	4.1%	4.1%	
1,2,3,6,7,8-HxCDF	0.0622	0.2488	1.66	B	<5x*B	1.66	0.83	0.1	0.2	0.1	0.2%	0.1%	
2,3,4,6,7,8-HxCDF	0.0843	0.3372	72.3	--		72.3	72.3	0.1	7.2	7.2	9.9%	9.9%	
1,2,3,7,8,9-HxCDF	0.126	0.504	68.6	--		68.6	68.6	0.1	6.9	6.9	9.4%	9.4%	
1,2,3,4,7,8-HxCDD	0.0219	0.0876	10.7	--		10.7	10.7	0.1	1.1	1.1	1.5%	1.5%	
1,2,3,6,7,8-HxCDD	0.0176	0.0704	14.9	--		14.9	14.9	0.1	1.5	1.5	2.0%	2.1%	
1,2,3,7,8,9-HxCDD	0.0203	0.0812	2.15	J		2.15	1.075	0.1	0.2	0.1	0.3%	0.2%	
1,2,3,4,6,7,8-HpCDF	0.179	0.716	7.94	--		7.94	7.94	0.01	0.1	0.1	0.1%	0.1%	
1,2,3,4,7,8,9-HpCDF	0.348	1.392	66.7	--		66.7	66.7	0.01	0.7	0.7	0.9%	0.9%	
1,2,3,4,6,7,8-HpCDD	0.0942	0.3768	98.3	--		98.3	98.3	0.01	1.0	1.0	1.3%	1.4%	
OCDF	0.0654	0.2616	31.7	--		31.7	31.7	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0723	0.2892	397	--		397	397	0.0001	0.0	0.0	0.1%	0.1%	
PCB-77	0.0713	0.2852	16.5	--		16.5	16.5	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0868	0.3472	0.958	B	<5x*B	0.958	0.479	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	1.63	6.52	700	CJ		700	350	0.0001	0.1	0.0	0.1%	0.1%	
PCB-114	1.7	6.8	36.8	--		36.8	36.8	0.0005	0.0	0.0	0.0%	0.0%	
PCB-118	1.95	7.8	1390	CJ		1390	695	0.0001	0.1	0.1	0.2%	0.1%	
PCB-123	2.21	8.84	23.2	J		23.2	11.6	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.287	1.148	3.51	--		3.51	3.51	0.1	0.4	0.4	0.5%	0.5%	
PCB-156	0.254	1.016	197	--		197	197	0.0005	0.1	0.1	0.1%	0.1%	
PCB-157	0.263	1.052	43.3	--		43.3	43.3	0.0005	0.0	0.0	0.0%	0.0%	
PCB-167	0.258	1.032	67.4	--		67.4	67.4	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	1.54	6.16	E			0.77		0.01	0.0		0.0%	0.0%	
PCB-189	0.17	0.68	8.51	--		8.51	8.51	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
72.5	72.1	0.7	0.6	73.2	72.7

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	943	PE Low Std	PEL-F-10										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0252	0.1008	3.39	NJ		1.695		0.1	0.2		0.3%	0.0%	
2,3,7,8-TCDD	0.0112	0.0448	10.4	--		10.4	10.4	1	10.4	10.4	15.3%	15.4%	
1,2,3,7,8-PeCDF	0.0285	0.114	97.1	--		97.1	97.1	0.05	4.9	4.9	7.2%	7.2%	
2,3,4,7,8-PeCDF	0.0216	0.0864	26.4	--		26.4	26.4	0.5	13.2	13.2	19.5%	19.5%	
1,2,3,7,8-PeCDD	0.00115	0.0046	18.7	--		18.7	18.7	1	18.7	18.7	27.6%	27.7%	
1,2,3,4,7,8-HxCDF	0.0528	0.2112	28.5	--		28.5	28.5	0.1	2.9	2.9	4.2%	4.2%	
1,2,3,6,7,8-HxCDF	0.0473	0.1892	1.24	--		1.24	1.24	0.1	0.1	0.1	0.2%	0.2%	
2,3,4,6,7,8-HxCDF	0.0582	0.2328	64.7	--		64.7	64.7	0.1	6.5	6.5	9.5%	9.6%	
1,2,3,7,8,9-HxCDF	0.0836	0.3344	64.2	--		64.2	64.2	0.1	6.4	6.4	9.5%	9.5%	
1,2,3,4,7,8-HxCDD	0.0245	0.098	8.81	--		8.81	8.81	0.1	0.9	0.9	1.3%	1.3%	
1,2,3,6,7,8-HxCDD	0.0228	0.0912	13.3	--		13.3	13.3	0.1	1.3	1.3	2.0%	2.0%	
1,2,3,7,8,9-HxCDD	0.0244	0.0976	2.24	--		2.24	2.24	0.1	0.2	0.2	0.3%	0.3%	
1,2,3,4,6,7,8-HpCDF	11	44	D	<5x*B		2.75		0.01	0.0		0.0%	0.0%	
1,2,3,4,7,8,9-HpCDF	0.105	0.42	60.7	--		60.7	60.7	0.01	0.6	0.6	0.9%	0.9%	
1,2,3,4,6,7,8-HpCDD	0.0239	0.0956	90	--		90	90	0.01	0.9	0.9	1.3%	1.3%	
OCDF	0.0329	0.1316	30.7	--		30.7	30.7	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0459	0.1836	406	--		406	406	0.0001	0.0	0.0	0.1%	0.1%	
PCB-77	0.0807	0.3228	16.3	B	<5x*B	16.3	8.15	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0778	0.3112	0.828	B	<5x*B	0.828	0.414	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	1.57	6.28	701	CJ		701	350.5	0.0001	0.1	0.0	0.1%	0.1%	
PCB-114	1.56	6.24	33.3	--		33.3	33.3	0.0005	0.0	0.0	0.0%	0.0%	
PCB-118	1.33	5.32	1410	CJ		1410	705	0.0001	0.1	0.1	0.2%	0.1%	
PCB-123	1.49	5.96	--			0.745		0.0001	0.0		0.0%	0.0%	
PCB-126	0.458	1.832	3.18	--		3.18	3.18	0.1	0.3	0.3	0.5%	0.5%	
PCB-156	0.391	1.564	203	--		203	203	0.0005	0.1	0.1	0.2%	0.2%	
PCB-157	0.412	1.648	47.1	--		47.1	47.1	0.0005	0.0	0.0	0.0%	0.0%	
PCB-167	0.379	1.516	73.6	--		73.6	73.6	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	1.05	4.2	E			0.525		0.01	0.0		0.0%	0.0%	
PCB-189	0.354	1.416	9.59	--		9.59	9.59	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
67.2	67.0	0.7	0.6	67.9	67.6

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	PC00268	PE Low Std	PEL										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0367	0.1468	2.86	NJ		1.43		0.1	0.1		0.3%	0.0%	
2,3,7,8-TCDD	0.0163	0.0652	8.14	--		8.14	8.14	1	8.1	8.1	16.2%	16.3%	
1,2,3,7,8-PeCDF	0.0831	0.3324	73	--		73	73	0.05	3.7	3.7	7.3%	7.3%	
2,3,4,7,8-PeCDF	0.038	0.152	18.9	--		18.9	18.9	0.5	9.5	9.5	18.8%	19.0%	
1,2,3,7,8-PeCDD	0.0239	0.0956	13.5	--		13.5	13.5	1	13.5	13.5	26.8%	27.1%	
1,2,3,4,7,8-HxCDF	0.0517	0.2068	19.4	--		19.4	19.4	0.1	1.9	1.9	3.9%	3.9%	
1,2,3,6,7,8-HxCDF	0.0581	0.2324	1.45	--		1.45	1.45	0.1	0.1	0.1	0.3%	0.3%	
2,3,4,6,7,8-HxCDF	0.0769	0.3076	50.7	--		50.7	50.7	0.1	5.1	5.1	10.1%	10.2%	
1,2,3,7,8,9-HxCDF	0.0969	0.3876	49.1	--		49.1	49.1	0.1	4.9	4.9	9.8%	9.9%	
1,2,3,4,7,8-HxCDD	0.0233	0.0932	6.02	--		6.02	6.02	0.1	0.6	0.6	1.2%	1.2%	
1,2,3,6,7,8-HxCDD	0.0189	0.0756	10	--		10	10	0.1	1.0	1.0	2.0%	2.0%	
1,2,3,7,8,9-HxCDD	0.0216	0.0864	1.57	J		1.57	0.785	0.1	0.2	0.1	0.3%	0.2%	
1,2,3,4,6,7,8-HpCDF	0.0461	0.1844	4.08	--		4.08	4.08	0.01	0.0	0.0	0.1%	0.1%	
1,2,3,4,7,8,9-HpCDF	0.0612	0.2448	38.4	--		38.4	38.4	0.01	0.4	0.4	0.8%	0.8%	
1,2,3,4,6,7,8-HpCDD	0.0743	0.2972	57	--		57	57	0.01	0.6	0.6	1.1%	1.1%	
OCDF	0.029	0.116	18.6	J		18.6	9.3	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0391	0.1564	230	--		230	230	0.0001	0.0	0.0	0.1%	0.1%	
PCB-77	0.103	0.412	16.6	B	<5x*B	16.6	8.3	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.0973	0.3892	1.02	B	<5x*B	1.02	0.51	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	0.355	1.42	612	CJ		612	306	0.0001	0.1	0.0	0.1%	0.1%	
PCB-114	0.371	1.484	29.5	--		29.5	29.5	0.0005	0.0	0.0	0.0%	0.0%	
PCB-118	0.422	1.688	1220	CJ		1220	610	0.0001	0.1	0.1	0.2%	0.1%	
PCB-123	0.479	1.916	18.2	--		18.2	18.2	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	0.279	1.116	2.81	J		2.81	1.405	0.1	0.3	0.1	0.6%	0.3%	
PCB-156	0.46	1.84	166	--		166	166	0.0005	0.1	0.1	0.2%	0.2%	
PCB-157	0.476	1.904	31.4	--		31.4	31.4	0.0005	0.0	0.0	0.0%	0.0%	
PCB-167	0.468	1.872	57.7	--		57.7	57.7	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	0.901	3.604	E		0.4505			0.01	0.0		0.0%	0.0%	
PCB-189	0.176	0.704	6.46	--		6.46	6.46	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
49.7	49.5	0.6	0.3	50.3	49.9

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	PC00359	PE Low Std	PEL									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0436	0.1744	2.14	NJ		1.07		0.1	0.1		0.2%	0.0%
2,3,7,8-TCDD	0.0214	0.0856	7.5	--		7.5	7.5	1	7.5	7.5	16.4%	16.5%
1,2,3,7,8-PeCDF	0.00537	0.0215	64.9	--		64.9	64.9	0.05	3.2	3.2	7.1%	7.1%
2,3,4,7,8-PeCDF	0.0041	0.0164	17.9	--		17.9	17.9	0.5	9.0	9.0	19.6%	19.7%
1,2,3,7,8-PeCDD	0.00127	0.0051	11.9	--		11.9	11.9	1	11.9	11.9	26.1%	26.2%
1,2,3,4,7,8-HxCDF	0.0726	0.2904	19.2	--		19.2	19.2	0.1	1.9	1.9	4.2%	4.2%
1,2,3,6,7,8-HxCDF	0.0659	0.2636	0.926	--		0.926	0.926	0.1	0.1	0.1	0.2%	0.2%
2,3,4,6,7,8-HxCDF	0.0982	0.3928	45.1	--		45.1	45.1	0.1	4.5	4.5	9.9%	9.9%
1,2,3,7,8,9-HxCDF	0.161	0.644	42.9	--		42.9	42.9	0.1	4.3	4.3	9.4%	9.4%
1,2,3,4,7,8-HxCDD	0.0371	0.1484	5.61	--		5.61	5.61	0.1	0.6	0.6	1.2%	1.2%
1,2,3,6,7,8-HxCDD	0.0328	0.1312	9.47	--		9.47	9.47	0.1	0.9	0.9	2.1%	2.1%
1,2,3,7,8,9-HxCDD	0.036	0.144	1.31	--		1.31	1.31	0.1	0.1	0.1	0.3%	0.3%
1,2,3,4,6,7,8-HpCDF	8.04	32.16	D	<5x*B		2.01		0.01	0.0		0.0%	0.0%
1,2,3,4,7,8,9-HpCDF	0.192	0.768	41.9	--		41.9	41.9	0.01	0.4	0.4	0.9%	0.9%
1,2,3,4,6,7,8-HpCDD	0.104	0.416	56.5	--		56.5	56.5	0.01	0.6	0.6	1.2%	1.2%
OCDF	0.143	0.572	24.9	--		24.9	24.9	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.199	0.796	228	--		228	228	0.0001	0.0	0.0	0.1%	0.1%
PCB-77	0.103	0.412	12.6	B	<5x*B	12.6	6.3	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.105	0.42	0.734	B	<5x*B	0.734	0.367	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	3.99	15.96	486	--		486	486	0.0001	0.0	0.0	0.1%	0.1%
PCB-114	3.97	15.88	25.2	--		25.2	25.2	0.0005	0.0	0.0	0.0%	0.0%
PCB-118	3.54	14.16	967	CJ		967	483.5	0.0001	0.1	0.0	0.2%	0.1%
PCB-123	3.98	15.92	--			1.99		0.0001	0.0		0.0%	0.0%
PCB-126	0.503	2.012	2.42	--		2.42	2.42	0.1	0.2	0.2	0.5%	0.5%
PCB-156	0.355	1.42	134	--		134	134	0.0005	0.1	0.1	0.2%	0.2%
PCB-157	0.374	1.496	33	--		33	33	0.0005	0.0	0.0	0.0%	0.0%
PCB-167	0.345	1.38	46.8	--		46.8	46.8	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.654	2.616	E			0.327		0.01	0.0		0.0%	0.0%
PCB-189	0.455	1.82	5.83	--		5.83	5.83	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
45.2	45.1	0.5	0.4	45.7	45.5

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	201	PE	Med Std	PEM-F-10								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEO	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0361	0.1444	6.22	NJ		3.11		0.1	0.3		0.2%	0.0%
2,3,7,8-TCDD	0.0204	0.0816	53.5	--		53.5	53.5	1	53.5	53.5	41.5%	42.5%
1,2,3,7,8-PeCDF	0.0173	0.0692	37.9	--		37.9	37.9	0.05	1.9	1.9	1.5%	1.5%
2,3,4,7,8-PeCDF	0.971	3.884		E		0.4855		0.5	0.2		0.2%	0.0%
1,2,3,7,8-PeCDD	0.00541	0.0216	42.2	--		42.2	42.2	1	42.2	42.2	32.7%	33.5%
1,2,3,4,7,8-HxCDF	0.0333	0.1332	39.6	--		39.6	39.6	0.1	4.0	4.0	3.1%	3.1%
1,2,3,6,7,8-HxCDF	0.0293	0.1172	1.64	--		1.64	1.64	0.1	0.2	0.2	0.1%	0.1%
2,3,4,6,7,8-HxCDF	0.0344	0.1376	31.1	--		31.1	31.1	0.1	3.1	3.1	2.4%	2.5%
1,2,3,7,8,9-HxCDF	0.0433	0.1732	8.31	--		8.31	8.31	0.1	0.8	0.8	0.6%	0.7%
1,2,3,4,7,8-HxCDD	0.0361	0.1444	35.7	--		35.7	35.7	0.1	3.6	3.6	2.8%	2.8%
1,2,3,6,7,8-HxCDD	0.0327	0.1308	2.88	--		2.88	2.88	0.1	0.3	0.3	0.2%	0.2%
1,2,3,7,8,9-HxCDD	0.0355	0.142	65.7	--		65.7	65.7	0.1	6.6	6.6	5.1%	5.2%
1,2,3,4,6,7,8-HpCDF	0.0497	0.1988	49.9	--		49.9	49.9	0.01	0.5	0.5	0.4%	0.4%
1,2,3,4,7,8,9-HpCDF	0.0771	0.3084	26.4	--		26.4	26.4	0.01	0.3	0.3	0.2%	0.2%
1,2,3,4,6,7,8-HpCDD	0.0532	0.2128	48.4	--		48.4	48.4	0.01	0.5	0.5	0.4%	0.4%
OCDF	0.0506	0.2024	146	--		146	146	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.0505	0.202	443	--		443	443	0.0001	0.0	0.0	0.0%	0.0%
PCB-77	0.865	3.46	199	--		199	199	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.882	3.528	8.17	--		8.17	8.17	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	14.6	58.4	10800	CJ		10800	5400	0.0001	1.1	0.5	0.8%	0.4%
PCB-114	14.5	58	698	CJ		698	349	0.0005	0.3	0.2	0.3%	0.1%
PCB-118	13	52	19700	SJ		19700	9850	0.0001	2.0	1.0	1.5%	0.8%
PCB-123	14.6	58.4		--		7.3		0.0001	0.0		0.0%	0.0%
PCB-126	8.18	32.72	58.7	--		58.7	58.7	0.1	5.9	5.9	4.5%	4.7%
PCB-156	2.78	11.12	2820	CJ		2820	1410	0.0005	1.4	0.7	1.1%	0.6%
PCB-157	2.92	11.68	649	CJ		649	324.5	0.0005	0.3	0.2	0.3%	0.1%
PCB-167	2.7	10.8	1080	CJ		1080	540	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	7.79	31.16		E		3.895		0.01	0.0		0.0%	0.0%
PCB-189	1.11	4.44	113	--		113	113	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
117.9	117.4	11.1	8.5	129.0	125.9

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	351	PE Med Std	PEM-F-12									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEO	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0316	0.1264	6.72	NJ		3.36		0.1	0.3		0.2%	0.0%
2,3,7,8-TCDD	0.0212	0.0848	58.9	--		58.9	58.9	1	58.9	58.9	42.7%	44.7%
1,2,3,7,8-PeCDF	0.0258	0.1032	44.6	--		44.6	44.6	0.05	2.2	2.2	1.6%	1.7%
2,3,4,7,8-PeCDF	0.0202	0.0808	1.05	--		1.05	1.05	0.5	0.5	0.5	0.4%	0.4%
1,2,3,7,8-PeCDD	0.00315	0.0126	43.7	--		43.7	43.7	1	43.7	43.7	31.7%	33.1%
1,2,3,4,7,8-HxCDF	0.0771	0.3084	44	--		44	44	0.1	4.4	4.4	3.2%	3.3%
1,2,3,6,7,8-HxCDF	0.0687	0.2748	1.84	B	<5x*B	1.84	0.92	0.1	0.2	0.1	0.1%	0.1%
2,3,4,6,7,8-HxCDF	0.0882	0.3528	35.1	--		35.1	35.1	0.1	3.5	3.5	2.5%	2.7%
1,2,3,7,8,9-HxCDF	0.121	0.484	9.08	--		9.08	9.08	0.1	0.9	0.9	0.7%	0.7%
1,2,3,4,7,8-HxCDD	0.0265	0.106	38.1	--		38.1	38.1	0.1	3.8	3.8	2.8%	2.9%
1,2,3,6,7,8-HxCDD	0.0235	0.094	3.28	--		3.28	3.28	0.1	0.3	0.3	0.2%	0.2%
1,2,3,7,8,9-HxCDD	0.026	0.104	57.1	J		57.1	28.55	0.1	5.7	2.9	4.1%	2.2%
1,2,3,4,6,7,8-HpCDF	0.0834	0.3336	50.2	--		50.2	50.2	0.01	0.5	0.5	0.4%	0.4%
1,2,3,4,7,8,9-HpCDF	0.157	0.628	31.2	--		31.2	31.2	0.01	0.3	0.3	0.2%	0.2%
1,2,3,4,6,7,8-HpCDD	0.096	0.384	57.1	--		57.1	57.1	0.01	0.6	0.6	0.4%	0.4%
OCDF	0.0519	0.2076	174	--		174	174	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.049	0.196	492	--		492	492	0.0001	0.0	0.0	0.0%	0.0%
PCB-77	0.0851	0.3404	210	--		210	210	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.116	0.464	8.66	--		8.66	8.66	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	53.9	215.6	11600	CJ		11600	5800	0.0001	1.2	0.6	0.8%	0.4%
PCB-114	56.4	225.6	692	CJ		692	346	0.0005	0.3	0.2	0.3%	0.1%
PCB-118	63.5	254	19000	SJ		19000	9500	0.0001	1.9	1.0	1.4%	0.7%
PCB-123	72.2	288.8	451	J		451	225.5	0.0001	0.0	0.0	0.0%	0.0%
PCB-126	4.31	17.24	65.2	--		65.2	65.2	0.1	6.5	6.5	4.7%	4.9%
PCB-156	1.13	4.52	2990	CJ		2990	1495	0.0005	1.5	0.7	1.1%	0.6%
PCB-157	1.17	4.68	687	CJ		687	343.5	0.0005	0.3	0.2	0.2%	0.1%
PCB-167	1.15	4.6	1140	CJ		1140	570	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	10.1	40.4		E		5.05		0.01	0.1		0.0%	0.0%
PCB-189	0.279	1.116	126	--		126	126	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
126.0	122.7	11.9	9.2	137.9	131.9

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	688	PE Med Std	PEM-F-11									
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0199	0.0796	6.24	NJ		3.12		0.1	0.3		0.3%	0.0%
2,3,7,8-TCDD	0.00962	0.0385	51.4	--		51.4	51.4	1	51.4	51.4	40.9%	42.8%
1,2,3,7,8-PeCDF	0.00192	0.0077	41.4	--		41.4	41.4	0.05	2.1	2.1	1.7%	1.7%
2,3,4,7,8-PeCDF	0.00144	0.0058	0.955	--		0.955	0.955	0.5	0.5	0.5	0.4%	0.4%
1,2,3,7,8-PeCDD	0.00154	0.0062	40.2	--		40.2	40.2	1	40.2	40.2	32.0%	33.4%
1,2,3,4,7,8-HxCDF	0.0487	0.1948	40.4	--		40.4	40.4	0.1	4.0	4.0	3.2%	3.4%
1,2,3,6,7,8-HxCDF	0.0429	0.1716	1.63	--		1.63	1.63	0.1	0.2	0.2	0.1%	0.1%
2,3,4,6,7,8-HxCDF	0.0513	0.2052	30.2	--		30.2	30.2	0.1	3.0	3.0	2.4%	2.5%
1,2,3,7,8,9-HxCDF	0.0509	0.2036	8.74	--		8.74	8.74	0.1	0.9	0.9	0.7%	0.7%
1,2,3,4,7,8-HxCDD	0.0173	0.0692	38.8	--		38.8	38.8	0.1	3.9	3.9	3.1%	3.2%
1,2,3,6,7,8-HxCDD	0.0171	0.0684	3.02	--		3.02	3.02	0.1	0.3	0.3	0.2%	0.3%
1,2,3,7,8,9-HxCDD	0.0179	0.0716	73.7	--		73.7	73.7	0.1	7.4	7.4	5.9%	6.1%
1,2,3,4,6,7,8-HpCDF	0.0649	0.2596	49.8	--		49.8	49.8	0.01	0.5	0.5	0.4%	0.4%
1,2,3,4,7,8,9-HpCDF	0.0783	0.3132	29.3	--		29.3	29.3	0.01	0.3	0.3	0.2%	0.2%
1,2,3,4,6,7,8-HpCDD	0.0488	0.1952	49.7	--		49.7	49.7	0.01	0.5	0.5	0.4%	0.4%
OCDF	0.0186	0.0744	142	--		142	142	0.0001	0.0	0.0	0.0%	0.0%
OCDD	0.0178	0.0712	449	--		449	449	0.0001	0.0	0.0	0.0%	0.0%
PCB-77	0.181	0.724	202	--		202	202	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.206	0.824	8.07	--		8.07	8.07	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	112	448	9070	SJ		9070	4535	0.0001	0.9	0.5	0.7%	0.4%
PCB-114	112	448	606	CJ		606	303	0.0005	0.3	0.2	0.2%	0.1%
PCB-118	106	424	11100	SJ		11100	5550	0.0001	1.1	0.6	0.9%	0.5%
PCB-123	119	476	516	CJ		516	258	0.0001	0.1	0.0	0.0%	0.0%
PCB-126	0.369	1.476	60.1	J		60.1	30.05	0.1	6.0	3.0	4.8%	2.5%
PCB-156	1.05	4.2	2800	CJ		2800	1400	0.0005	1.4	0.7	1.1%	0.6%
PCB-157	1.11	4.44	630	CJ		630	315	0.0005	0.3	0.2	0.3%	0.1%
PCB-167	1.02	4.08	924	CJ		924	462	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	9.63	38.52		E		4.815		0.01	0.0		0.0%	0.0%
PCB-189	0.2	0.8	115	--		115	115	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
115.5	115.1	10.2	5.1	125.6	120.2

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	PC00807	PE Med Std	PEM										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0199	0.0796	4.04	NJ		2.02		0.1	0.2		0.3%	0.0%	
2,3,7,8-TCDD	0.0103	0.0412	32.5	--		32.5	32.5	1	32.5	32.5	40.0%	40.9%	
1,2,3,7,8-PeCDF	0.0204	0.0816	25	--		25	25	0.05	1.3	1.3	1.5%	1.6%	
2,3,4,7,8-PeCDF	0.0164	0.0656	0.597	--		0.597	0.597	0.5	0.3	0.3	0.4%	0.4%	
1,2,3,7,8-PeCDD	0.00791	0.0316	27.3	--		27.3	27.3	1	27.3	27.3	33.6%	34.4%	
1,2,3,4,7,8-HxCDF	0.0382	0.1528	25.4	--		25.4	25.4	0.1	2.5	2.5	3.1%	3.2%	
1,2,3,6,7,8-HxCDF	0.0334	0.1336	1.09	--		1.09	1.09	0.1	0.1	0.1	0.1%	0.1%	
2,3,4,6,7,8-HxCDF	0.0473	0.1892	20	--		20	20	0.1	2.0	2.0	2.5%	2.5%	
1,2,3,7,8,9-HxCDF	0.0707	0.2828	5.19	--		5.19	5.19	0.1	0.5	0.5	0.6%	0.7%	
1,2,3,4,7,8-HxCDD	0.0205	0.082	23.3	--		23.3	23.3	0.1	2.3	2.3	2.9%	2.9%	
1,2,3,6,7,8-HxCDD	0.0185	0.074	1.89	--		1.89	1.89	0.1	0.2	0.2	0.2%	0.2%	
1,2,3,7,8,9-HxCDD	0.02	0.08	33.8	--		33.8	33.8	0.1	3.4	3.4	4.2%	4.3%	
1,2,3,4,6,7,8-HpCDF	0.126	0.504	31.7	--		31.7	31.7	0.01	0.3	0.3	0.4%	0.4%	
1,2,3,4,7,8,9-HpCDF	0.225	0.9	18	--		18	18	0.01	0.2	0.2	0.2%	0.2%	
1,2,3,4,6,7,8-HpCDD	0.0316	0.1264	27	--		27	27	0.01	0.3	0.3	0.3%	0.3%	
OCDF	0.0904	0.3616	102	--		102	102	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0497	0.1988	199	--		199	199	0.0001	0.0	0.0	0.0%	0.0%	
PCB-77	0.424	1.696	148	--		148	148	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.427	1.708	6.1	--		6.1	6.1	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	23.1	92.4	7410	CJ		7410	3705	0.0001	0.7	0.4	0.9%	0.5%	
PCB-114	23	92	428	--		428	428	0.0005	0.2	0.2	0.3%	0.3%	
PCB-118	20.9	83.6	14700	SJ		14700	7350	0.0001	1.5	0.7	1.8%	0.9%	
PCB-123	23.5	94	--			11.75		0.0001	0.0		0.0%	0.0%	
PCB-126	6.24	24.96	42.2	--		42.2	42.2	0.1	4.2	4.2	5.2%	5.3%	
PCB-156	0.961	3.844	1940	CJ		1940	970	0.0005	1.0	0.5	1.2%	0.6%	
PCB-157	1.01	4.04	436	--		436	436	0.0005	0.2	0.2	0.3%	0.3%	
PCB-167	0.934	3.736	756	CJ		756	378	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	5.21	20.84	E			2.605		0.01	0.0		0.0%	0.0%	
PCB-189	0.731	2,924	71.6	--		71.6	71.6	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
73.4	73.2	7.9	6.3	81.3	79.5

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	PC00820	PE Med Std	PEM										
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0678	0.2712	4.59	NJ		2.295		0.1	0.2		0.3%	0.0%	
2,3,7,8-TCDD	0.0267	0.1068	31.5	--		31.5	31.5	1	31.5	31.5	37.1%	40.2%	
1,2,3,7,8-PeCDF	0.0594	0.2376	25.8	--		25.8	25.8	0.05	1.3	1.3	1.5%	1.7%	
2,3,4,7,8-PeCDF	0.0401	0.1604	0.749	--		0.749	0.749	0.5	0.4	0.4	0.4%	0.5%	
1,2,3,7,8-PeCDD	0.061	0.244	29.8	I		29.8	29.8	1	29.8	29.8	35.1%	38.0%	
1,2,3,4,7,8-HxCDF	0.0612	0.2448	25.9	--		25.9	25.9	0.1	2.6	2.6	3.1%	3.3%	
1,2,3,6,7,8-HxCDF	0.0469	0.1876	1.62	--		1.62	1.62	0.1	0.2	0.2	0.2%	0.2%	
2,3,4,6,7,8-HxCDF	0.0622	0.2488	22.3	--		22.3	22.3	0.1	2.2	2.2	2.6%	2.8%	
1,2,3,7,8,9-HxCDF	0.0961	0.3844	5.59	--		5.59	5.59	0.1	0.6	0.6	0.7%	0.7%	
1,2,3,4,7,8-HxCDD	0.0616	0.2464	21.1	--		21.1	21.1	0.1	2.1	2.1	2.5%	2.7%	
1,2,3,6,7,8-HxCDD	0.0447	0.1788	2.05	--		2.05	2.05	0.1	0.2	0.2	0.2%	0.3%	
1,2,3,7,8,9-HxCDD	0.0537	0.2148	43.8	J		43.8	21.9	0.1	4.4	2.2	5.2%	2.8%	
1,2,3,4,6,7,8-HpCDF	0.0311	0.1244	28.8	--		28.8	28.8	0.01	0.3	0.3	0.3%	0.4%	
1,2,3,4,7,8,9-HpCDF	0.0734	0.2936	14.8	--		14.8	14.8	0.01	0.1	0.1	0.2%	0.2%	
1,2,3,4,6,7,8-HpCDD	0.0861	0.3444	24	--		24	24	0.01	0.2	0.2	0.3%	0.3%	
OCDF	0.0403	0.1612	29.5	J		29.5	14.75	0.0001	0.0	0.0	0.0%	0.0%	
OCDD	0.0559	0.2236	178	--		178	178	0.0001	0.0	0.0	0.0%	0.0%	
PCB-77	0.0968	0.3872	166	--		166	166	0.0001	0.0	0.0	0.0%	0.0%	
PCB-81	0.108	0.432	6.77	--		6.77	6.77	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105	16.4	65.6	7990	CJ		7990	3995	0.0001	0.8	0.4	0.9%	0.5%	
PCB-114	17.2	68.8	469	--		469	469	0.0005	0.2	0.2	0.3%	0.3%	
PCB-118	19.5	78	16000	SJ		16000	8000	0.0001	1.6	0.8	1.9%	1.0%	
PCB-123	22.2	88.8	268	--		268	268	0.0001	0.0	0.0	0.0%	0.0%	
PCB-126	1.9	7.6	49.5	J		49.5	24.75	0.1	5.0	2.5	5.8%	3.2%	
PCB-156	2.26	9.04	2000	CJ		2000	1000	0.0005	1.0	0.5	1.2%	0.6%	
PCB-157	2.34	9.36	453	--		453	453	0.0005	0.2	0.2	0.3%	0.3%	
PCB-167	2.3	9.2	751	CJ		751	375.5	0.00001	0.0	0.0	0.0%	0.0%	
PCB-169	6.29	25.16		E		3.145		0.01	0.0		0.0%	0.0%	
PCB-189	0.221	0.884	71.8	--		71.8	71.8	0.0001	0.0	0.0	0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
76.1	73.7	8.9	4.7	85.0	78.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	333	Split		S1								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.0438	0.1752	1.52	NJ		0.76		0.1	0.1		1.0%	0.0%
2,3,7,8-TCDD	0.0336	0.1344		--		0.0168		1	0.0		0.2%	0.0%
1,2,3,7,8-PeCDF	0.0326	0.1304	11.3	--		11.3	11.3	0.05	0.6	0.6	7.4%	7.6%
2,3,4,7,8-PeCDF	0.0252	0.1008	1.92	--		1.92	1.92	0.5	1.0	1.0	12.6%	13.0%
1,2,3,7,8-PeCDD	0.0244	0.0976	0.497	--		0.497	0.497	1	0.5	0.5	6.5%	6.7%
1,2,3,4,7,8-HxCDF	0.024	0.096	19.1	--		19.1	19.1	0.1	1.9	1.9	25.1%	25.8%
1,2,3,6,7,8-HxCDF	0.0207	0.0828	8.84	--		8.84	8.84	0.1	0.9	0.9	11.6%	12.0%
2,3,4,6,7,8-HxCDF	0.0227	0.0908	4.21	--		4.21	4.21	0.1	0.4	0.4	5.5%	5.7%
1,2,3,7,8,9-HxCDF	0.0254	0.1016	4.77	--		4.77	4.77	0.1	0.5	0.5	6.3%	6.5%
1,2,3,4,7,8-HxCDD	0.66	2.64		E	<5x*B	0.33		0.1	0.0		0.4%	0.0%
1,2,3,6,7,8-HxCDD	0.0544	0.2176	1.05	--		1.05	1.05	0.1	0.1	0.1	1.4%	1.4%
1,2,3,7,8,9-HxCDD	1.21	4.84		E		0.605		0.1	0.1		0.8%	0.0%
1,2,3,4,6,7,8-HpCDF	0.032	0.128	49.7	--		49.7	49.7	0.01	0.5	0.5	6.5%	6.7%
1,2,3,4,7,8,9-HpCDF	0.0406	0.1624	21.4	--		21.4	21.4	0.01	0.2	0.2	2.8%	2.9%
1,2,3,4,6,7,8-HpCDD	0.086	0.344	15.9	--		15.9	15.9	0.01	0.2	0.2	2.1%	2.2%
OCDF	0.014	0.056	333	--		333	333	0.0001	0.0	0.0	0.4%	0.5%
OCDD	0.0341	0.1364	127	--		127	127	0.0001	0.0	0.0	0.2%	0.2%
PCB-77	0.133	0.532	23.8	--		23.8	23.8	0.0001	0.0	0.0	0.0%	0.0%
PCB-81	0.13	0.52	1.41	B	<5x*B	1.41	0.705	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	0.569	2.276	290	--		290	290	0.0001	0.0	0.0	0.4%	0.4%
PCB-114	0.565	2.26	18.3	--		18.3	18.3	0.0005	0.0	0.0	0.1%	0.1%
PCB-118	0.417	1.668	629	CJ		629	314.5	0.0001	0.1	0.0	0.8%	0.4%
PCB-123	0.469	1.876		--	0.2345			0.0001	0.0		0.0%	0.0%
PCB-126	0.393	1.572	5.09	--		5.09	5.09	0.1	0.5	0.5	6.7%	6.9%
PCB-156	0.54	2.16	104	--		104	104	0.0005	0.1	0.1	0.7%	0.7%
PCB-157	0.569	2.276	26.3	--		26.3	26.3	0.0005	0.0	0.0	0.2%	0.2%
PCB-167	0.524	2.096	46.2	--		46.2	46.2	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0474	0.1896	1.03	--		1.03	1.03	0.01	0.0	0.0	0.1%	0.1%
PCB-189	12.8	51.2		E		6.4		0.0001	0.0		0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
6.9	6.7	0.7	0.7	7.6	7.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	743	Split		S5		Several analytes not reported							
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ		
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant	
2,3,7,8-TCDF	0.0624	0.2496	0.337	NJ		0.1685		0.1	0.0		1.3%	0.0%	
2,3,7,8-TCDD	1.15	4.6		E		0.575		1	0.6		43.0%	0.0%	
1,2,3,7,8-PeCDF	0.644	2.576		E		0.322		0.05	0.0		1.2%	0.0%	
2,3,4,7,8-PeCDF	0.36	1.44		E		0.18		0.5	0.1		6.7%	0.0%	
1,2,3,7,8-PeCDD	0.0527	0.2108		--		0.02635		1	0.0		2.0%	0.0%	
1,2,3,4,7,8-HxCDF	1.07	4.28		E		0.535		0.1	0.1		4.0%	0.0%	
1,2,3,6,7,8-HxCDF	0.0337	0.1348	0.566	B	<5x*B	0.566	0.283	0.1	0.1	0.0	4.2%	6.4%	
2,3,4,6,7,8-HxCDF	0.528	2.112		E		0.264		0.1	0.0		2.0%	0.0%	
1,2,3,7,8,9-HxCDF	0.0562	0.2248	0.472	--		0.472	0.472	0.1	0.0	0.0	3.5%	10.8%	
1,2,3,4,7,8-HxCDD	0.309	1.236		E		0.1545		0.1	0.0		1.2%	0.0%	
1,2,3,6,7,8-HxCDD	0.0142	0.0568	0.424	--		0.424	0.424	0.1	0.0	0.0	3.2%	9.7%	
1,2,3,7,8,9-HxCDD	0.24	0.96		EJ		0.12		0.1	0.0		0.9%	0.0%	
1,2,3,4,6,7,8-HpCDF	0.031	0.124	3.99	--		3.99	3.99	0.01	0.0	0.0	3.0%	9.1%	
1,2,3,4,7,8,9-HpCDF	0.0533	0.2132	1.28	--		1.28	1.28	0.01	0.0	0.0	1.0%	2.9%	
1,2,3,4,6,7,8-HpCDD	7.71	30.84		E		3.855		0.01	0.0		2.9%	0.0%	
OCDF	0.0478	0.1912	21.6	--		21.6	21.6	0.0001	0.0	0.0	0.2%	0.5%	
OCDD	0.055	0.22	63.8	--		63.8	63.8	0.0001	0.0	0.0	0.5%	1.5%	
PCB-77	0.0613	0.2452	7.62	B	<5x*B	7.62	3.81	0.0001	0.0	0.0	0.1%	0.1%	
PCB-81	0.0796	0.3184	1.2	B	<5x*B	1.2	0.6	0.0001	0.0	0.0	0.0%	0.0%	
PCB-105				--	<5x*B			0.0001			0.0%	0.0%	
PCB-114				--	<5x*B			0.0005			0.0%	0.0%	
PCB-118				--	<5x*B			0.0001			0.0%	0.0%	
PCB-123				--	<5x*B			0.0001			0.0%	0.0%	
PCB-126	0.252	1.008	2.51	--		2.51	2.51	0.1	0.3	0.3	18.8%	57.1%	
PCB-156				--	<5x*B			0.0005			0.0%	0.0%	
PCB-157				--	<5x*B			0.0005			0.0%	0.0%	
PCB-167				--	<5x*B			0.00001			0.0%	0.0%	
PCB-169	0.0865	0.346	0.867	--		0.867	0.867	0.01	0.0	0.0	0.7%	2.0%	
PCB-189				--				0.0001			0.0%	0.0%	

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
1.1	0.2	0.3	0.3	1.3	0.4

## APPENDIX A2. Quality Control Results

FINAL

Sample ID	874	Split		S35								
Analyte	Analytical Limits		Results		<5x in MB found	Adjusted Concentrations*		WHO TEFs Human	Calculated TEQs (ppt)		Percent of Total TEQ	
	EDL	QL	Conc	Flag		Full	Quant		Full	Quant	Full	Quant
2,3,7,8-TCDF	0.904	3.616		E		0.452		0.1	0.0		1.0%	0.0%
2,3,7,8-TCDD	0.029	0.116	0.117	--		0.117	0.117	1	0.1	0.1	2.6%	2.9%
1,2,3,7,8-PeCDF	0.0132	0.0528	4.37	--		4.37	4.37	0.05	0.2	0.2	4.9%	5.5%
2,3,4,7,8-PeCDF	0.00997	0.0399	0.986	--		0.986	0.986	0.5	0.5	0.5	11.1%	12.3%
1,2,3,7,8-PeCDD	0.431	1.724		E		0.2155		1	0.2		4.8%	0.0%
1,2,3,4,7,8-HxCDF	0.0195	0.078	7.28	--		7.28	7.28	0.1	0.7	0.7	16.3%	18.2%
1,2,3,6,7,8-HxCDF	0.0171	0.0684	3.77	--		3.77	3.77	0.1	0.4	0.4	8.5%	9.4%
2,3,4,6,7,8-HxCDF	0.0198	0.0792	1.92	--		1.92	1.92	0.1	0.2	0.2	4.3%	4.8%
1,2,3,7,8,9-HxCDF	0.023	0.092	1.7	B	<5x*B	1.7	0.85	0.1	0.2	0.1	3.8%	2.1%
1,2,3,4,7,8-HxCDD	0.0397	0.1588	0.437	B	<5x*B	0.437	0.2185	0.1	0.0	0.0	1.0%	0.6%
1,2,3,6,7,8-HxCDD	0.681	2.724		E		0.3405		0.1	0.0		0.8%	0.0%
1,2,3,7,8,9-HxCDD	0.694	2.776		E		0.347		0.1	0.0		0.8%	0.0%
1,2,3,4,6,7,8-HpCDF	0.0207	0.0828	19.8	--		19.8	19.8	0.01	0.2	0.2	4.4%	5.0%
1,2,3,4,7,8,9-HpCDF	0.0293	0.1172	7.91	--		7.91	7.91	0.01	0.1	0.1	1.8%	2.0%
1,2,3,4,6,7,8-HpCDD	0.0531	0.2124	15.2	--		15.2	15.2	0.01	0.2	0.2	3.4%	3.8%
OCDF	0.0128	0.0512	104	--		104	104	0.0001	0.0	0.0	0.2%	0.3%
OCDD	0.028	0.112	119	--		119	119	0.0001	0.0	0.0	0.3%	0.3%
PCB-77	0.0571	0.2284	66.4	--		66.4	66.4	0.0001	0.0	0.0	0.2%	0.2%
PCB-81	0.0558	0.2232	2.48	B	<5x*B	2.48	1.24	0.0001	0.0	0.0	0.0%	0.0%
PCB-105	1.97	7.88	338	--		338	338	0.0001	0.0	0.0	0.8%	0.9%
PCB-114	1.96	7.84	15.5	--		15.5	15.5	0.0005	0.0	0.0	0.2%	0.2%
PCB-118	1.65	6.6	623	CJ		623	311.5	0.0001	0.1	0.0	1.4%	0.8%
PCB-123	1.86	7.44		--		0.93		0.0001	0.0		0.0%	0.0%
PCB-126	0.573	2.292	11.5	--		11.5	11.5	0.1	1.2	1.2	25.8%	28.8%
PCB-156	0.496	1.984	108	--		108	108	0.0005	0.1	0.1	1.2%	1.4%
PCB-157	0.522	2.088	27.3	--		27.3	27.3	0.0005	0.0	0.0	0.3%	0.3%
PCB-167	0.481	1.924	48.3	--		48.3	48.3	0.00001	0.0	0.0	0.0%	0.0%
PCB-169	0.0853	0.3412	1.18	--		1.18	1.18	0.01	0.0	0.0	0.3%	0.3%
PCB-189	0.526	2.104	12.2	--		12.2	12.2	0.0001	0.0	0.0	0.0%	0.0%

\* Adjusted concentrations were modified using validation flags.

The Dioxin/Furan Only Full TEQ is used in this report. --->

Dioxin/Furan Only		PCBs Only		All Analytes	
Full	Quant	Full	Quant	Full	Quant
3.1	2.7	1.3	1.3	4.5	4.0

**APPENDIX B**  
**GRAPHICAL DATA PRESENTATIONS**

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**APPENDIX B1**

**Congener Concentrations and Contributions to TEQ**

**APPENDIX B2**

**Homologue Concentrations and Contributions to TEQ**

**APPENDIX B3**

**PCDD and PCDF Concentrations and Contributions to TEQ**

**APPENDIX B4**

**QC Sample Congener Concentrations and Contributions to TEQ**

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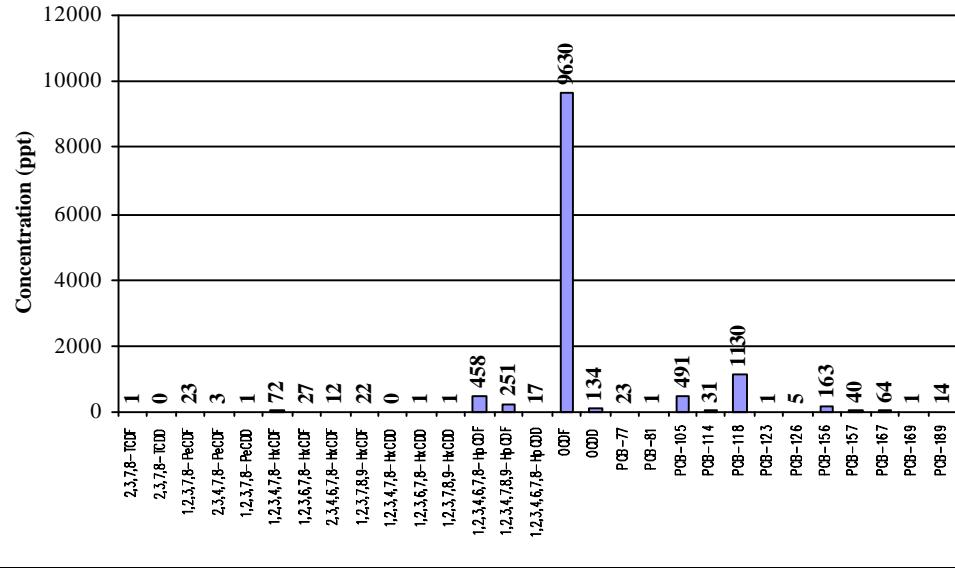
These results were used in congener pattern analysis.

### Sample 463

### SI

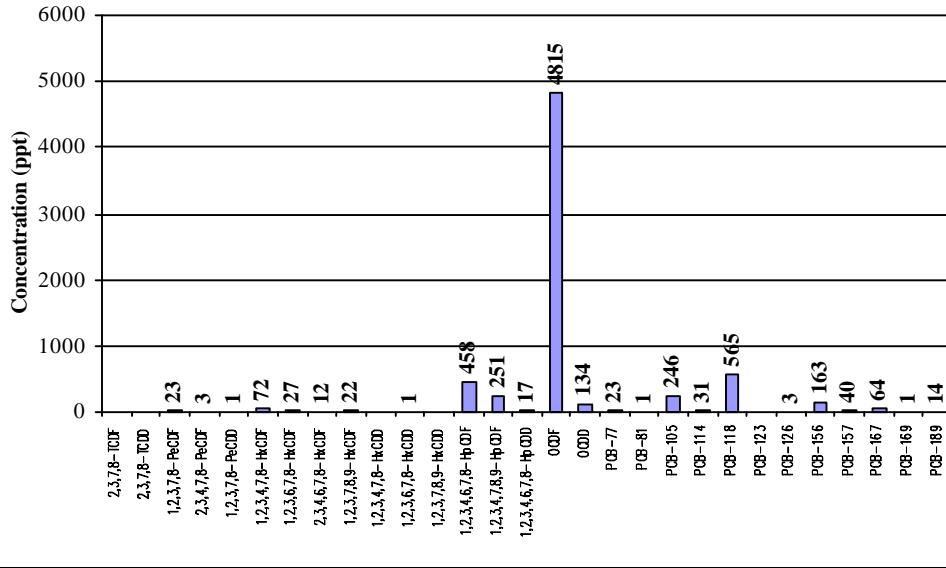
#### Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



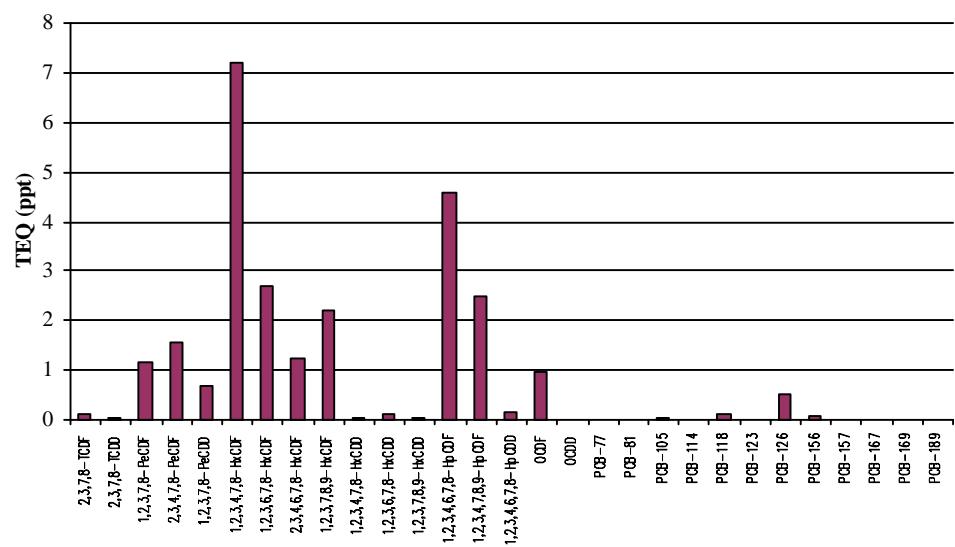
#### Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



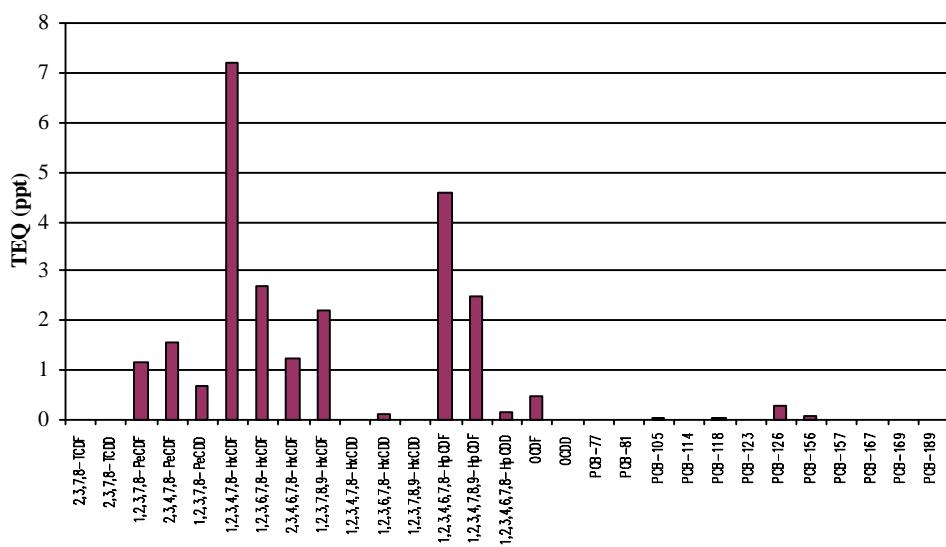
#### Full TEQs: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



#### Quantitative TEQs: Congener Profile

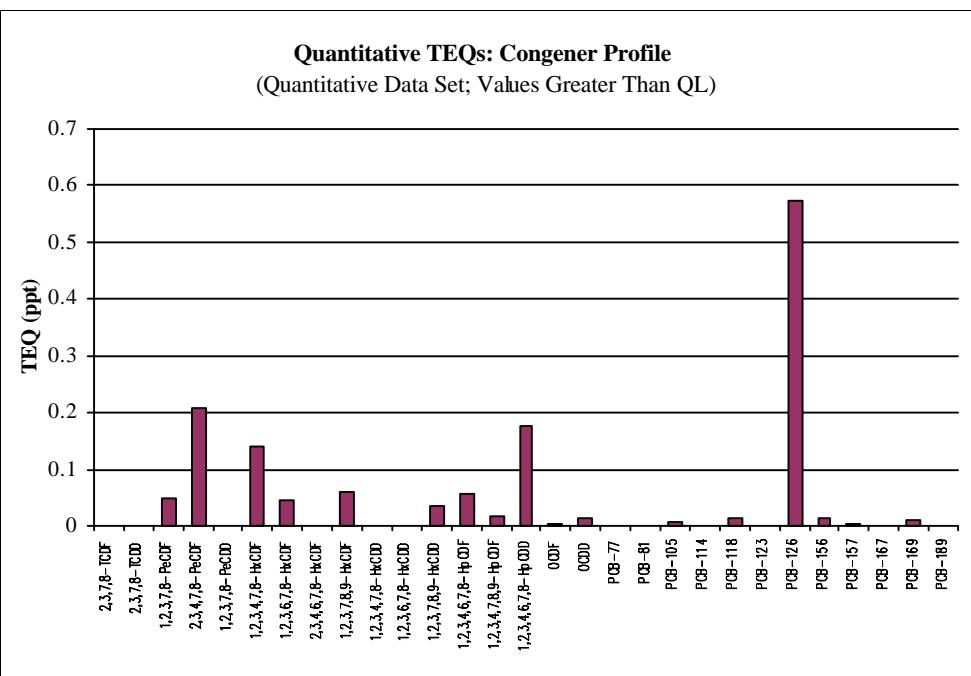
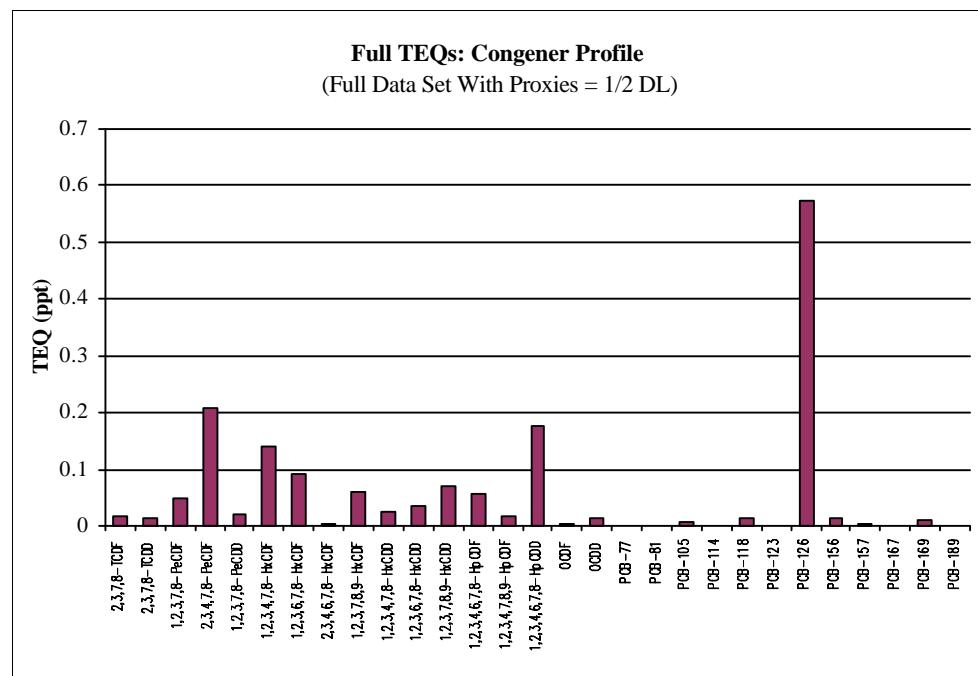
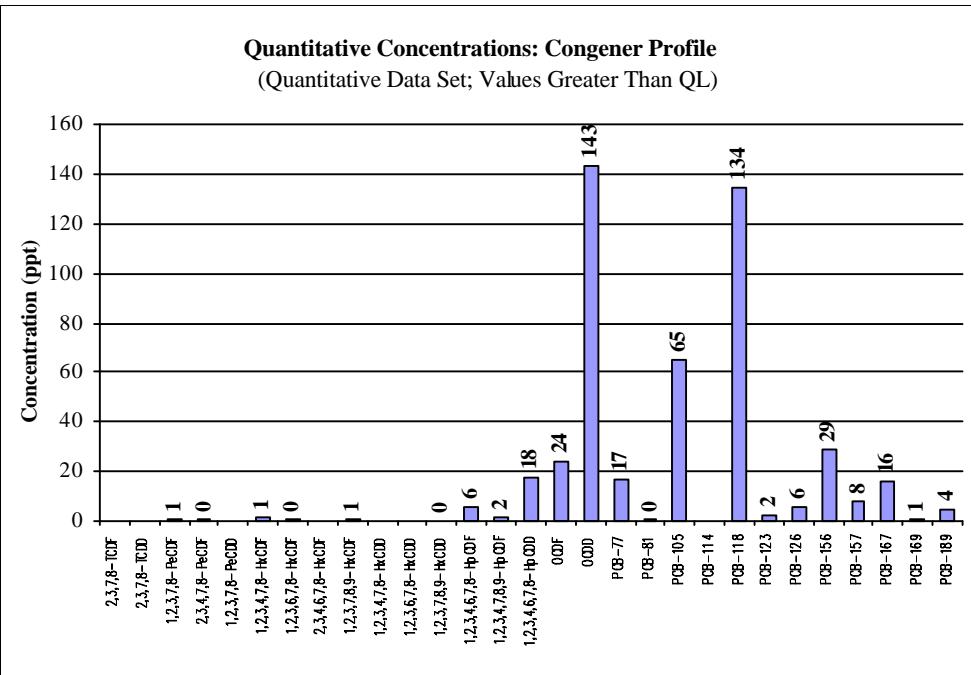
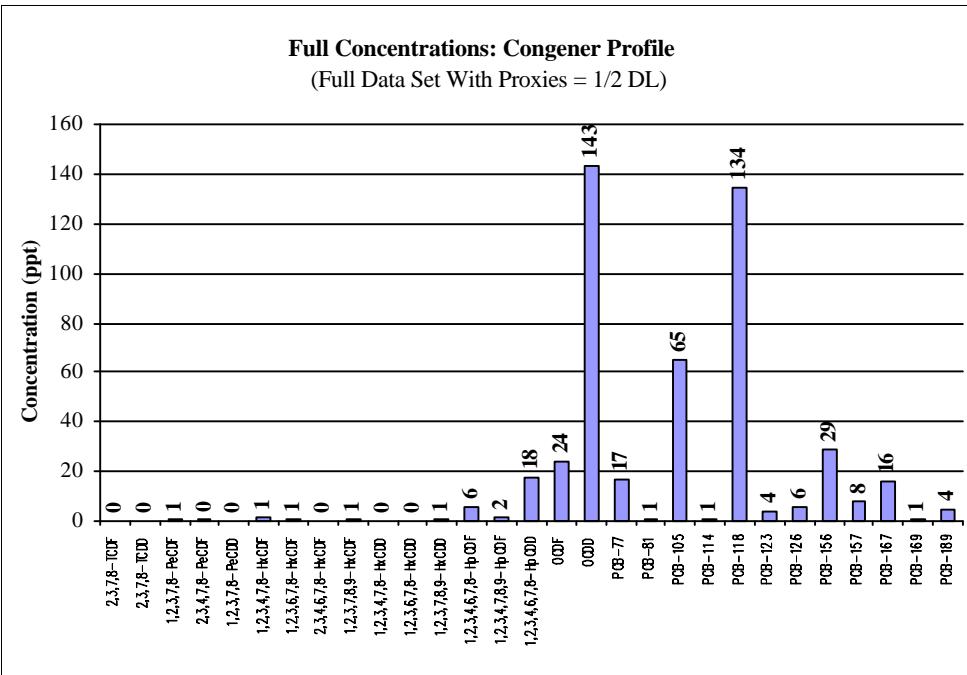
(Quantitative Data Set; Values Greater Than QL)



These results were used in congener pattern analysis.

Sample 318

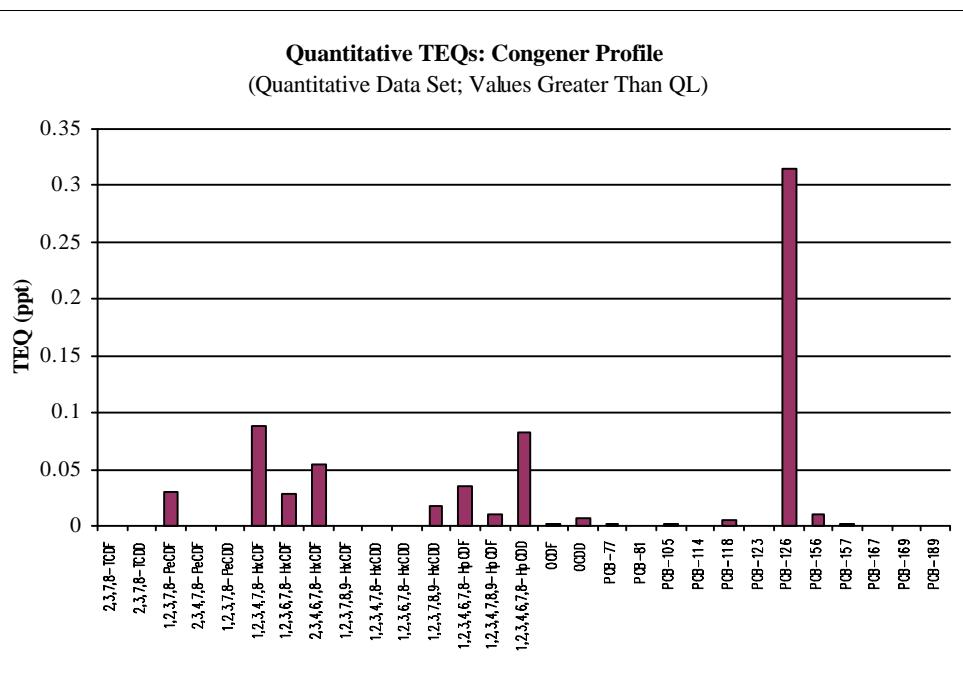
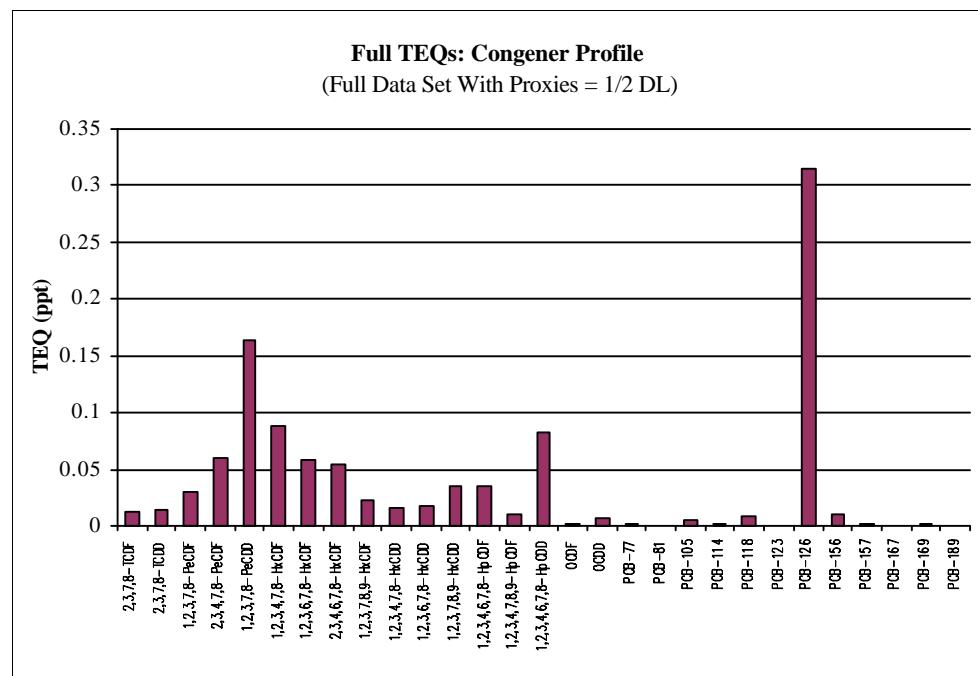
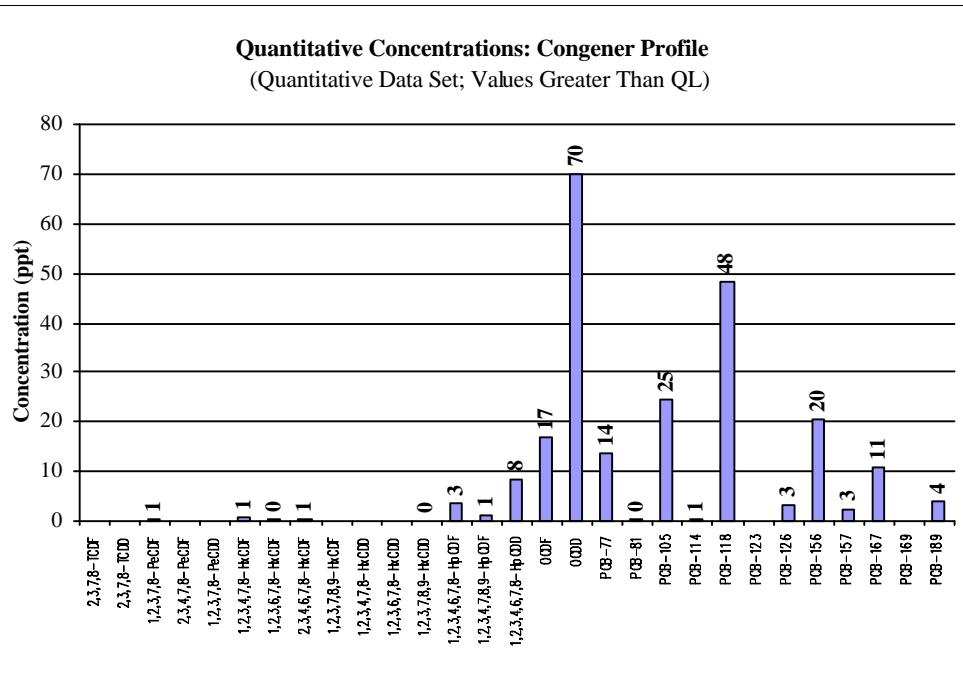
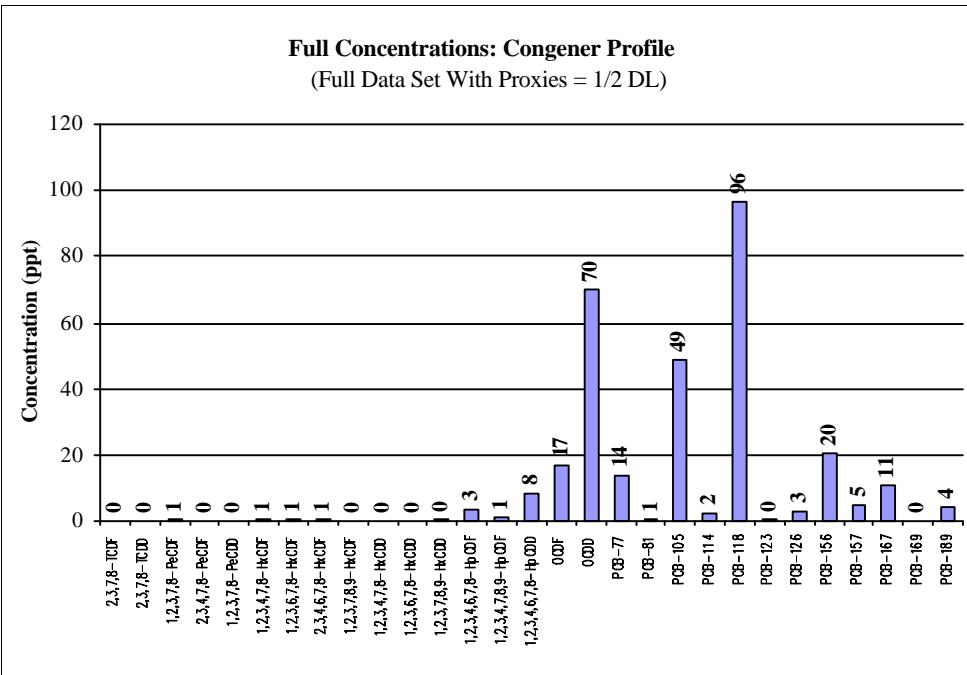
S11



These results were used in congener pattern analysis.

Sample 567

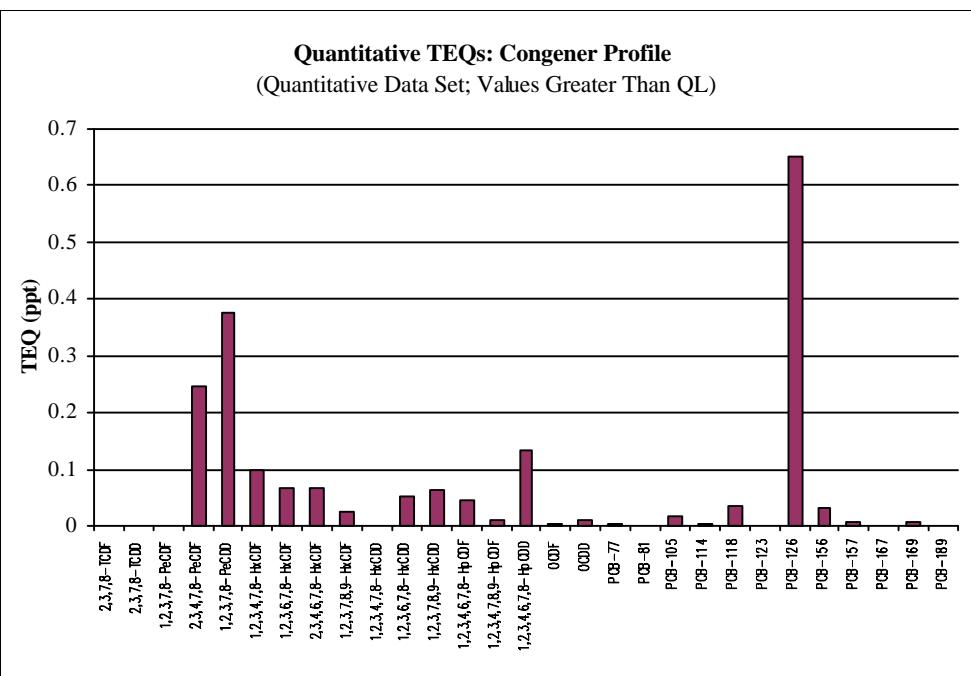
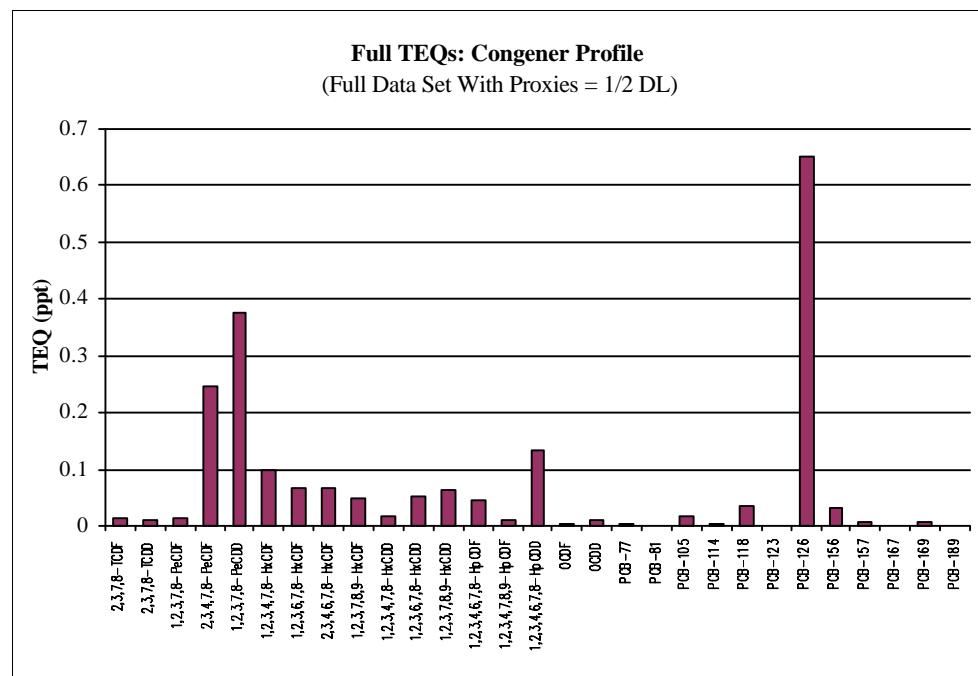
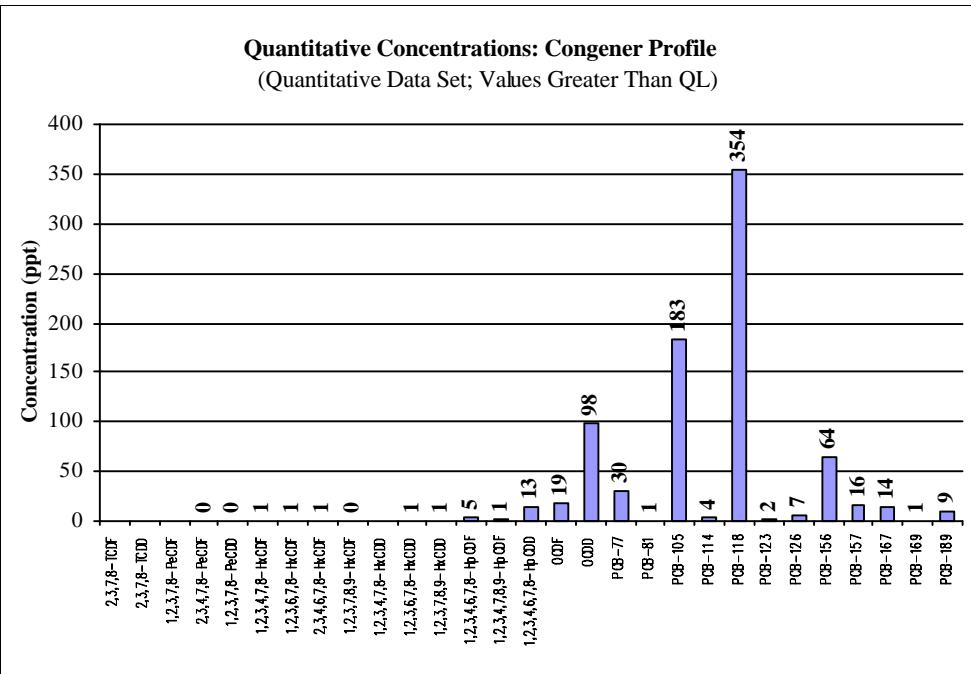
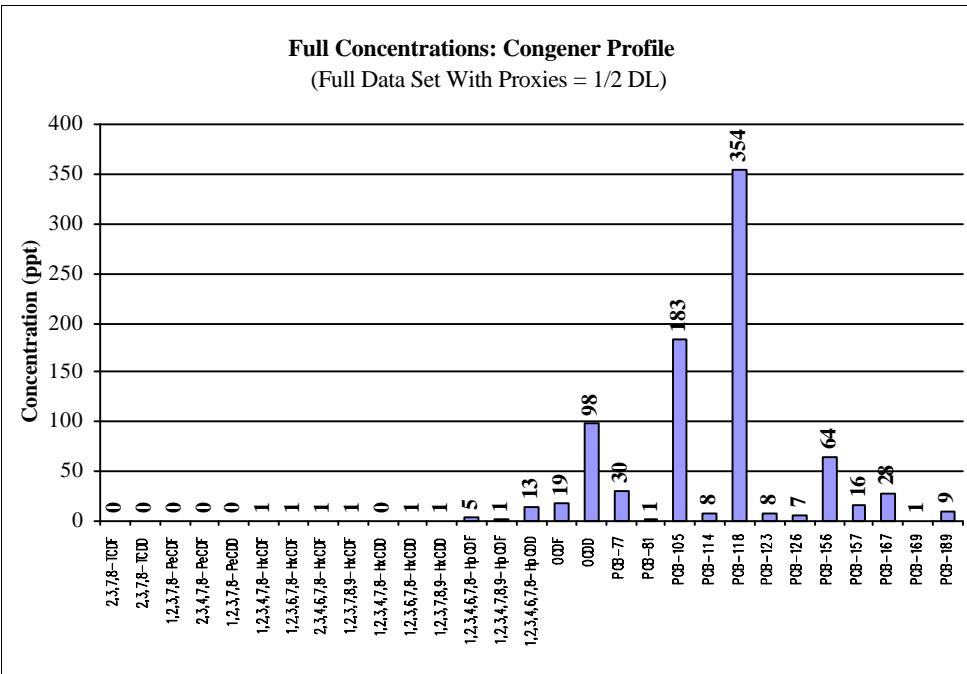
S12



These results were used in congener pattern analysis.

Sample 187

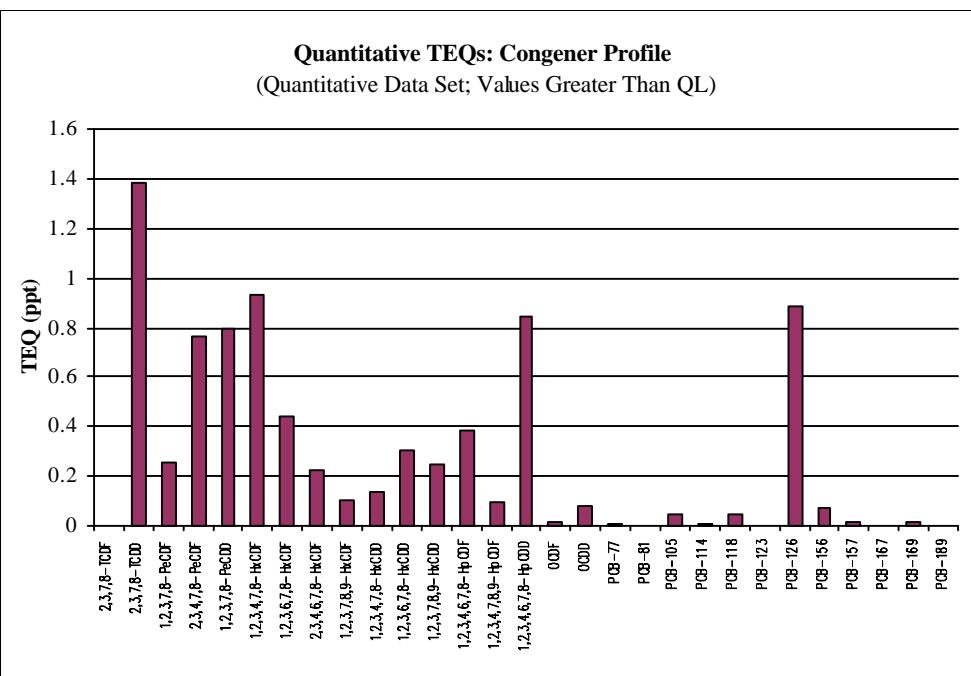
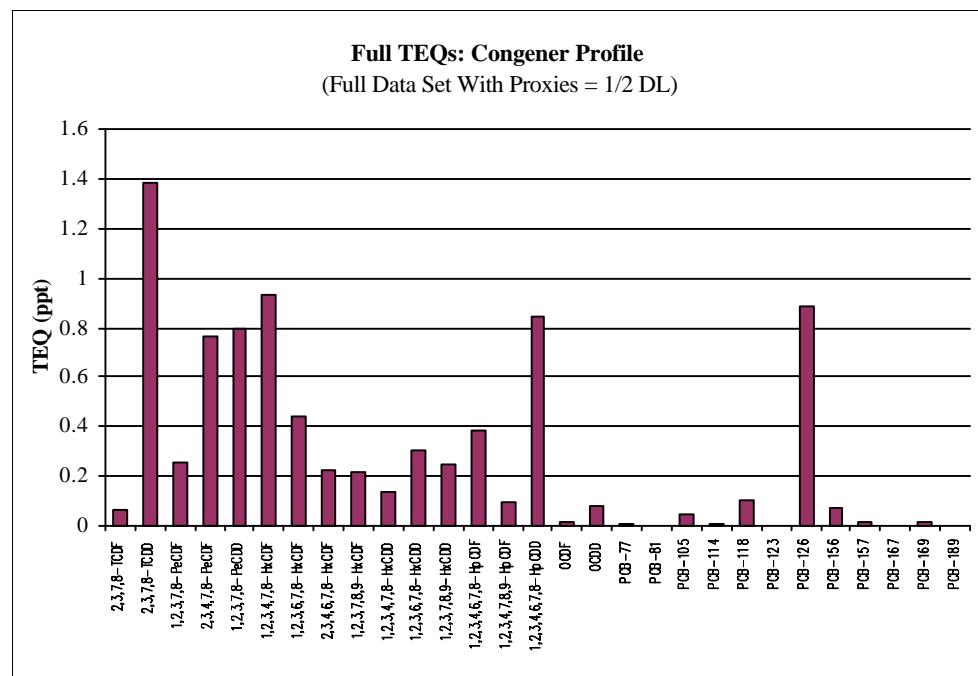
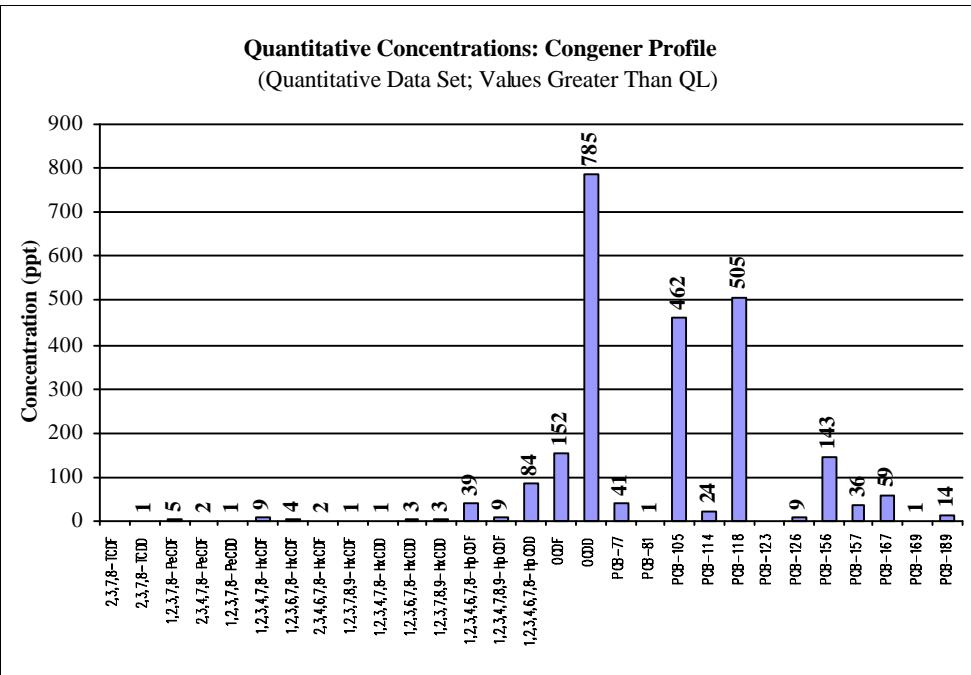
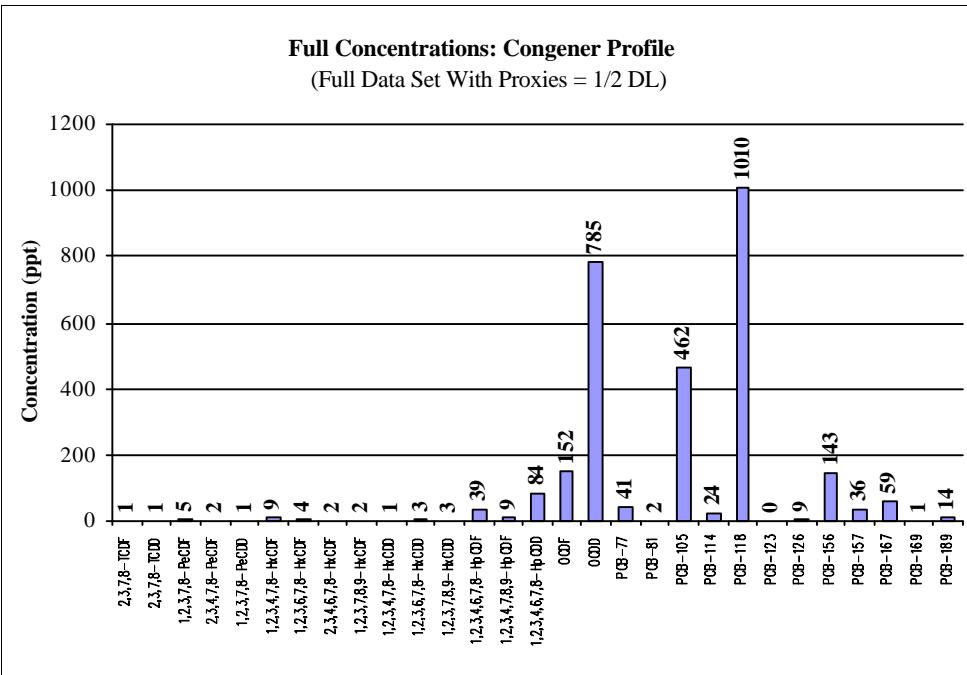
S19



These results were used in congener pattern analysis.

Sample 429

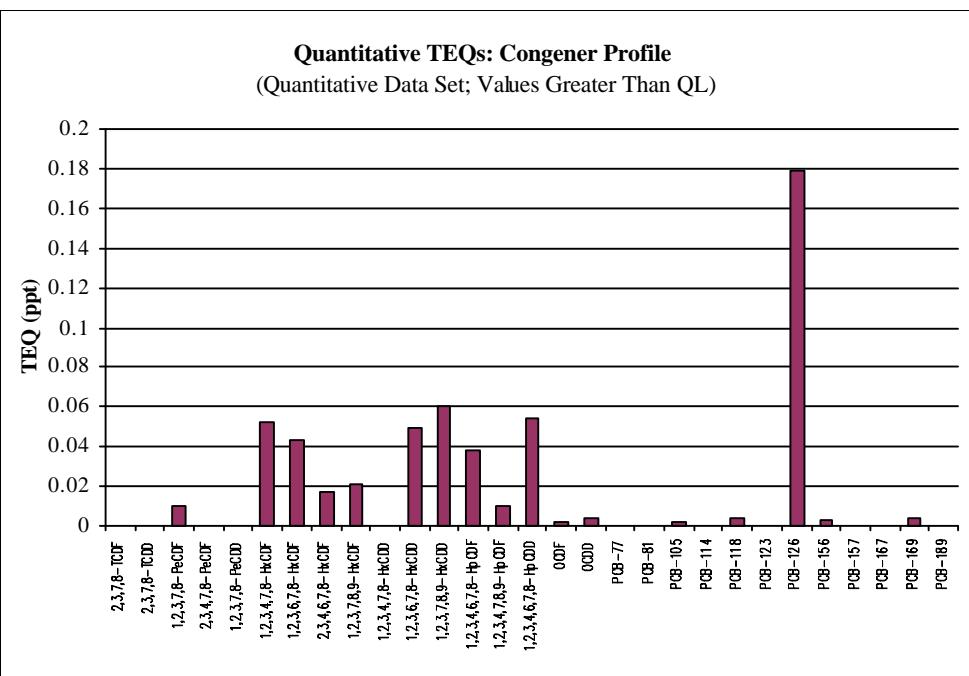
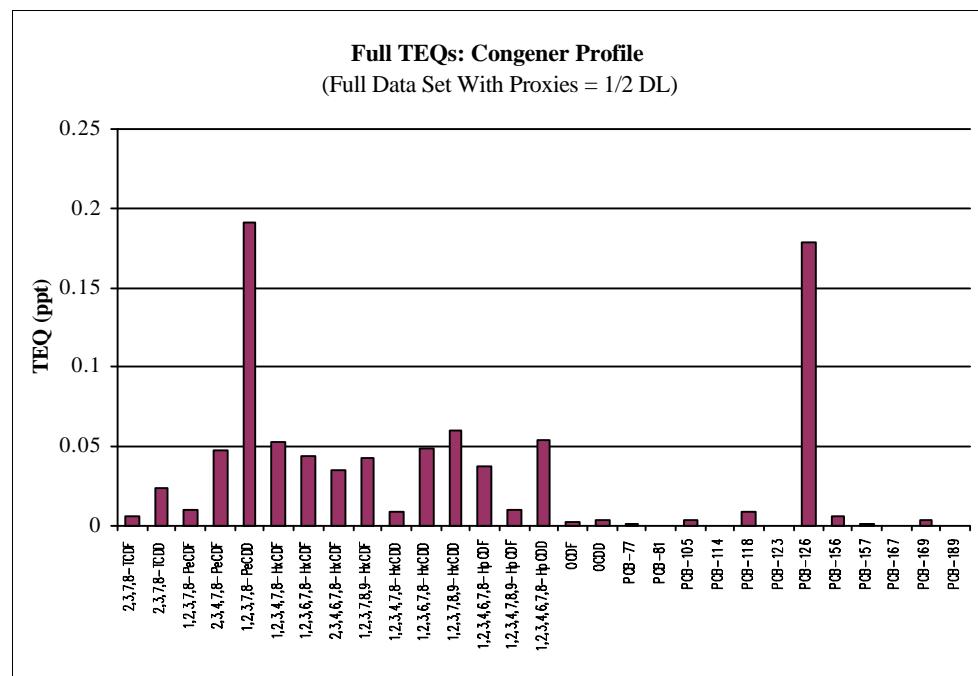
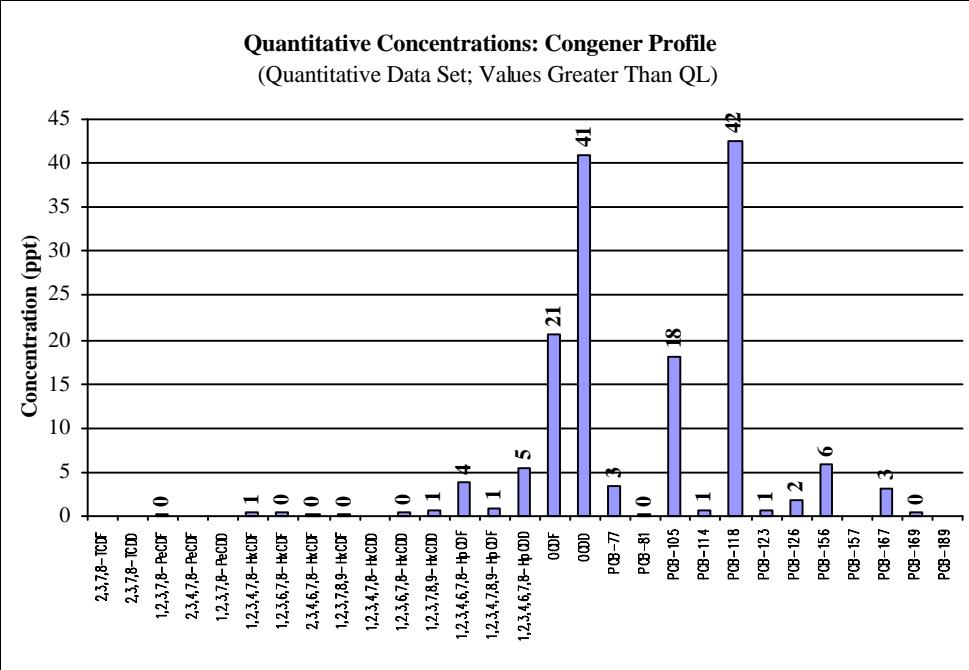
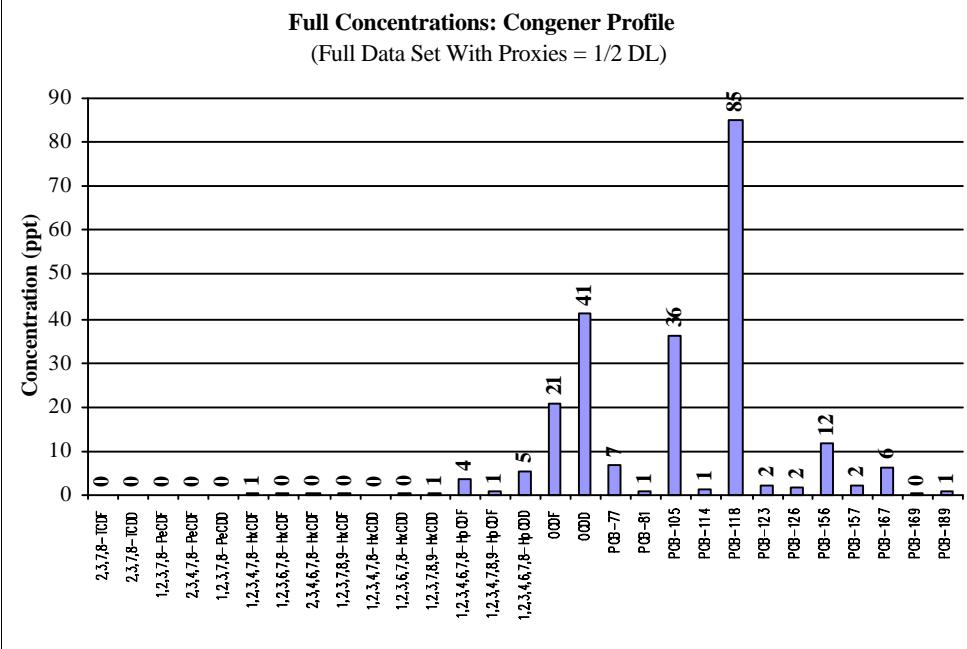
S2



These results were used in congener pattern analysis.

Sample 291

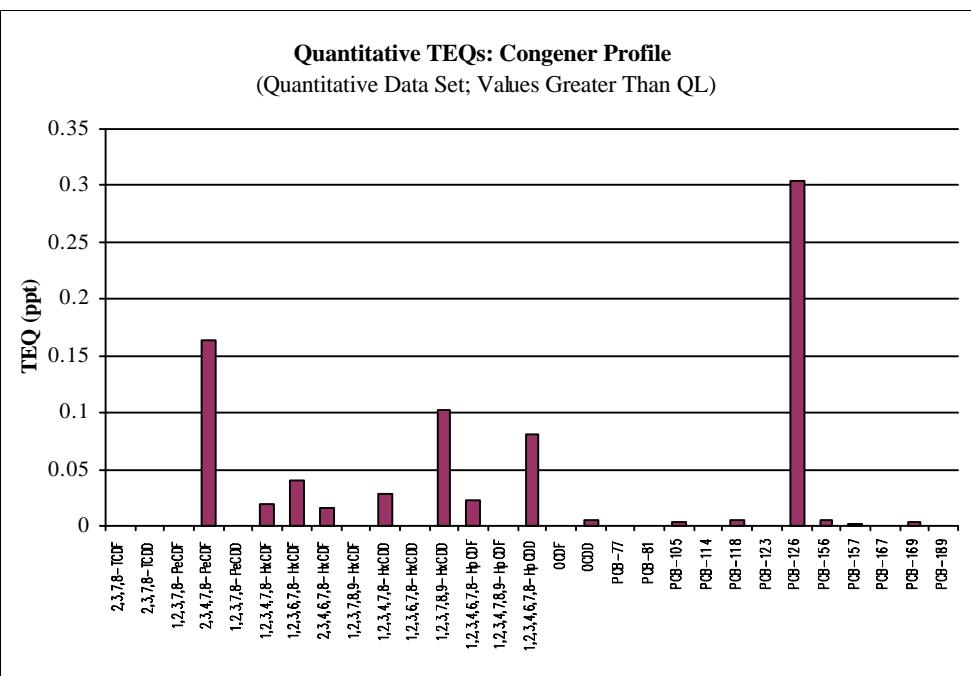
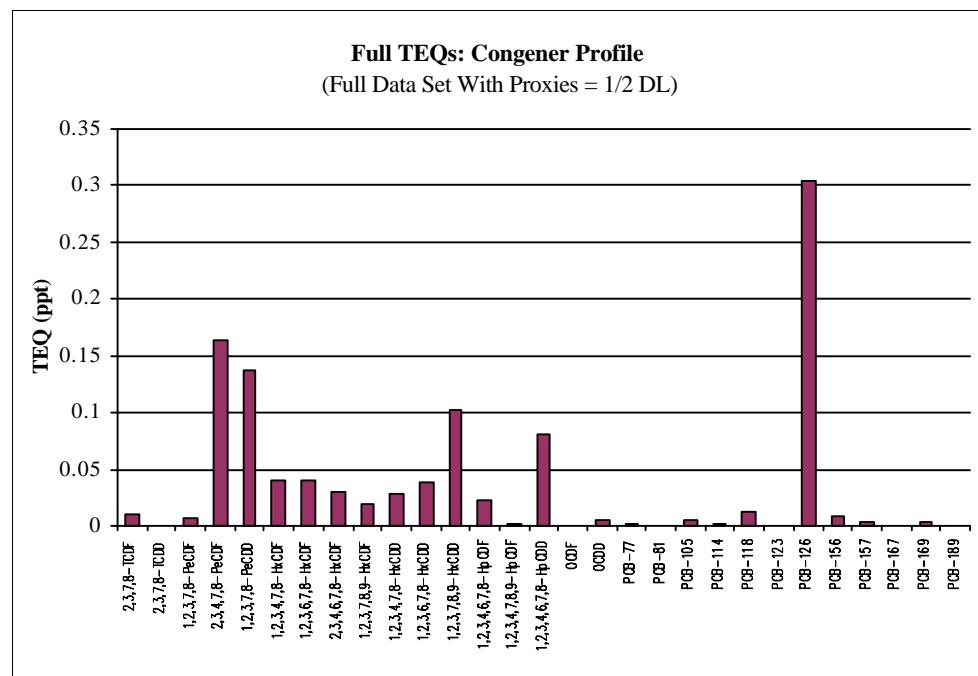
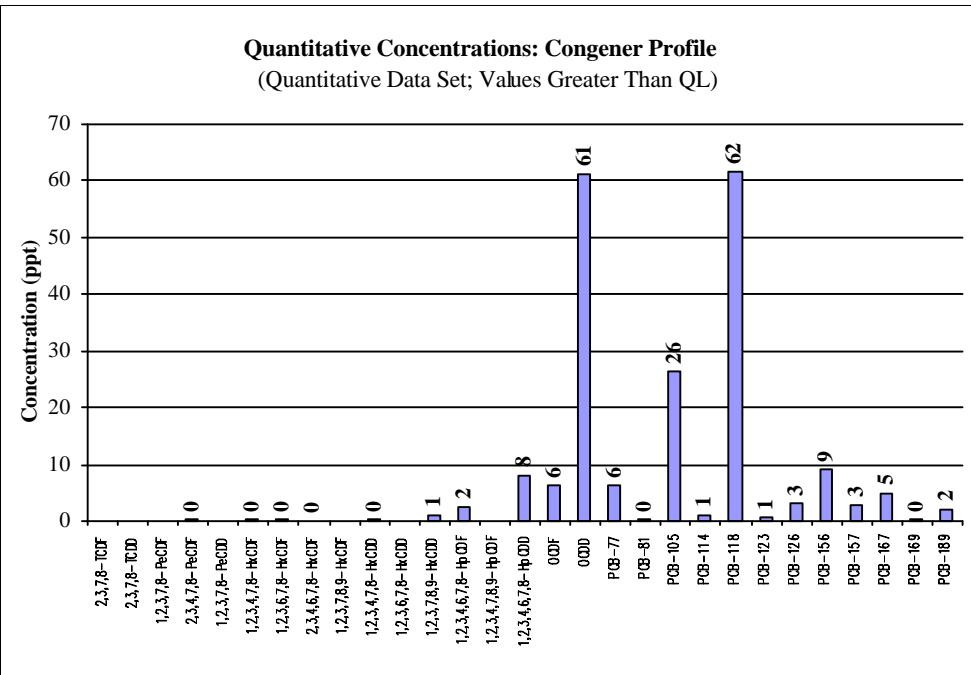
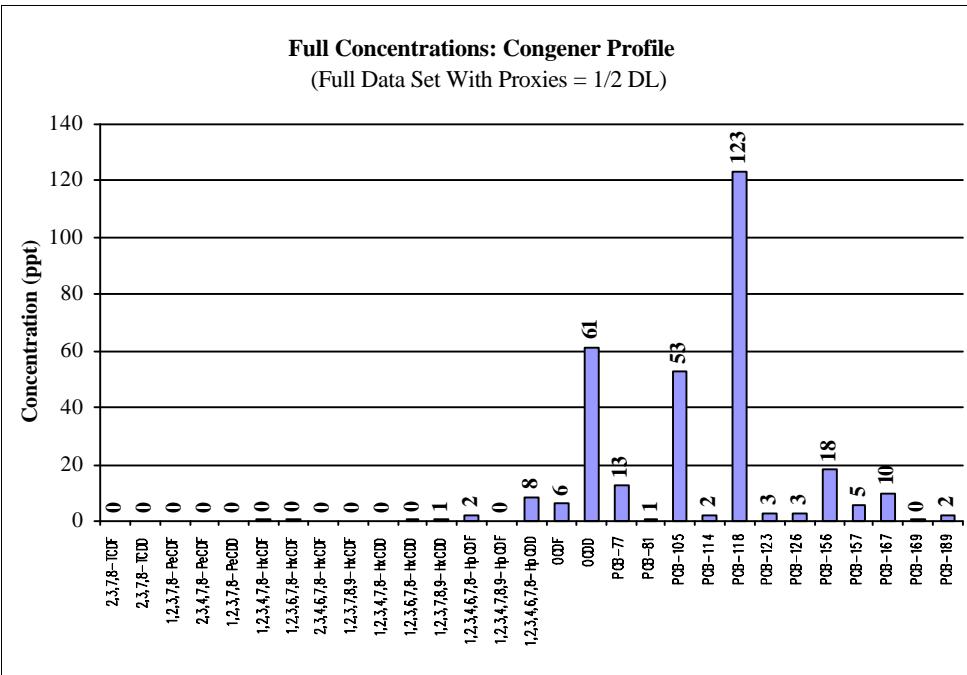
S20



These results were used in congener pattern analysis.

*Sample 644*

S22



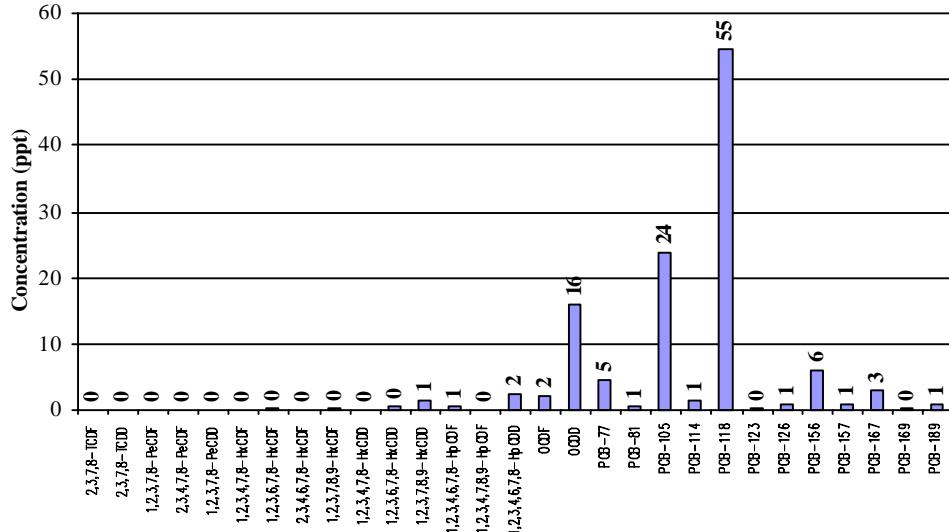
These results were used in congener pattern analysis.

Sample 521

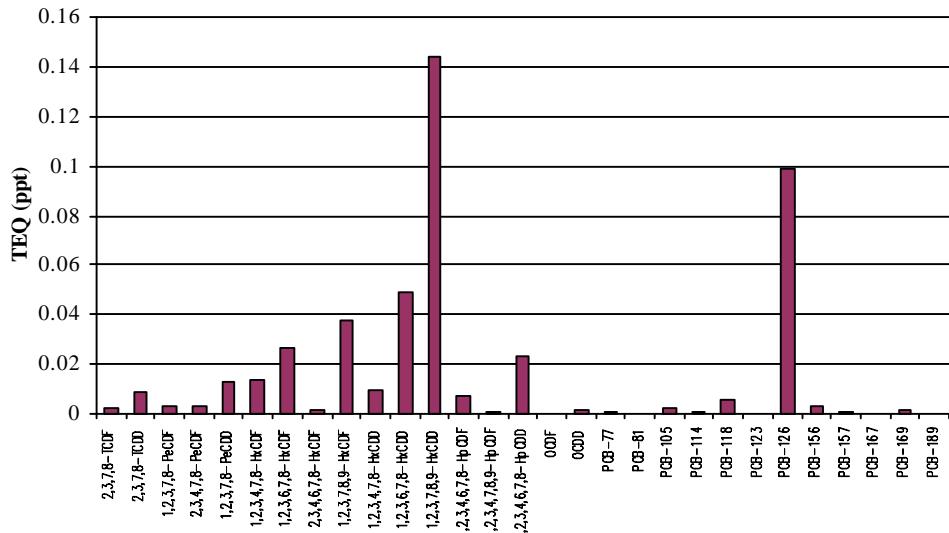
S23

## **Full Concentrations: Congener Profile**

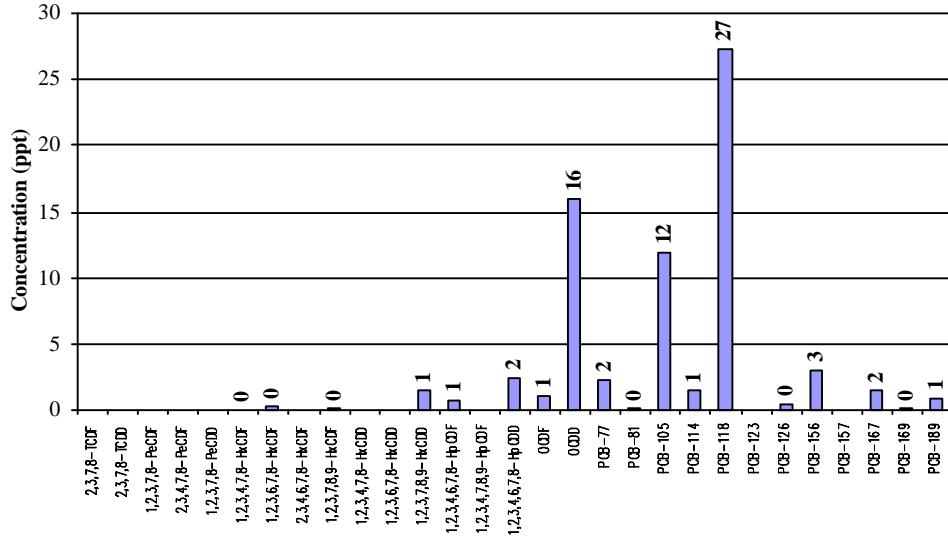
(Full Data Set With Proxies = 1/2 DL)



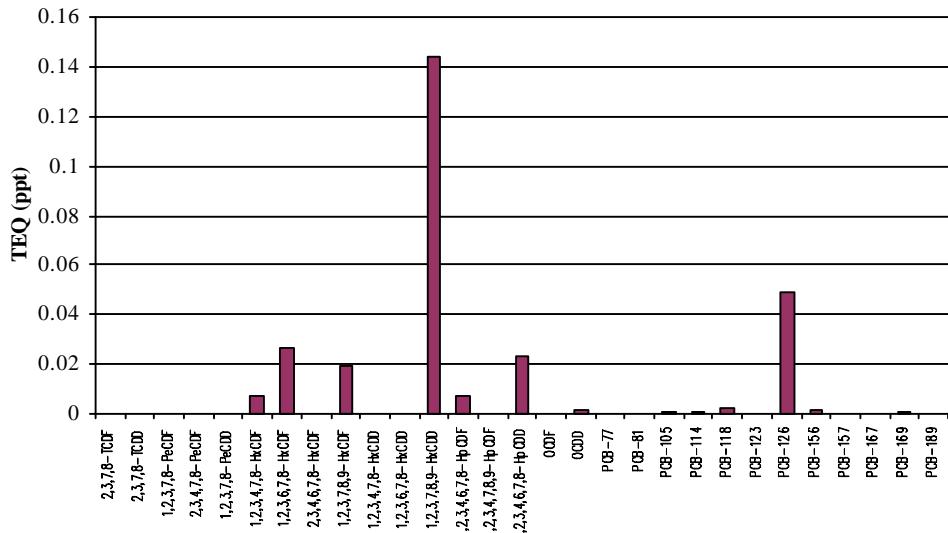
## **Full TEQs: Congener Profile**



## **Quantitative Concentrations: Congener Profile**



## Quantitative TEQs: Congener Profile



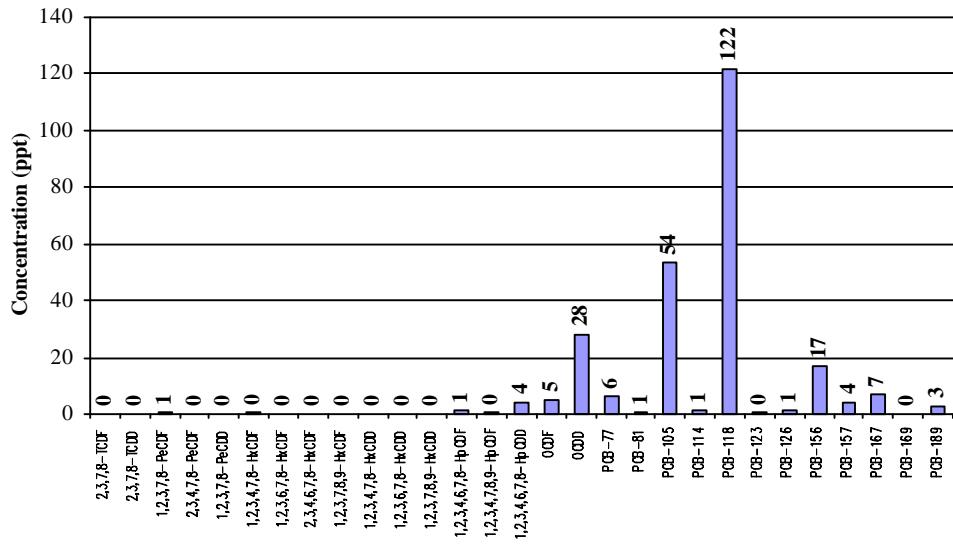
These results were used in congener pattern analysis.

### Sample 385

### S24

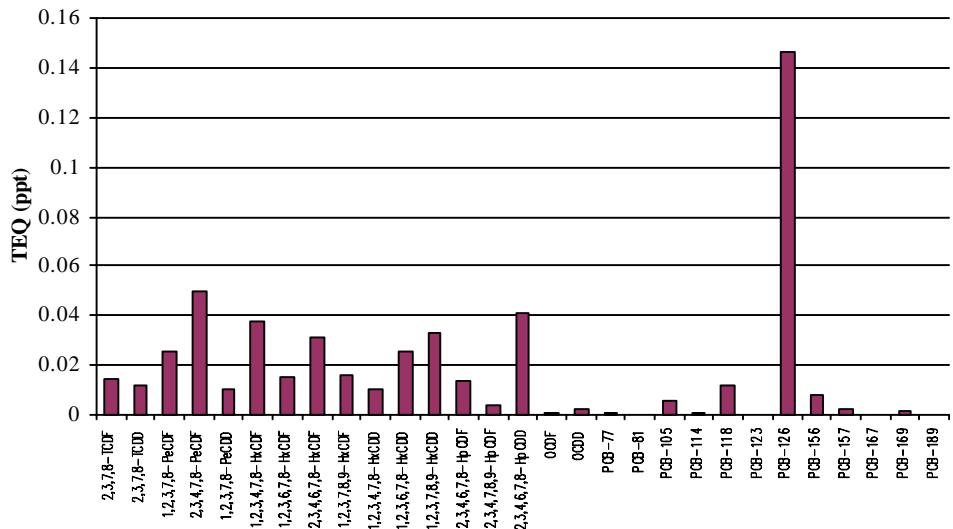
#### Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



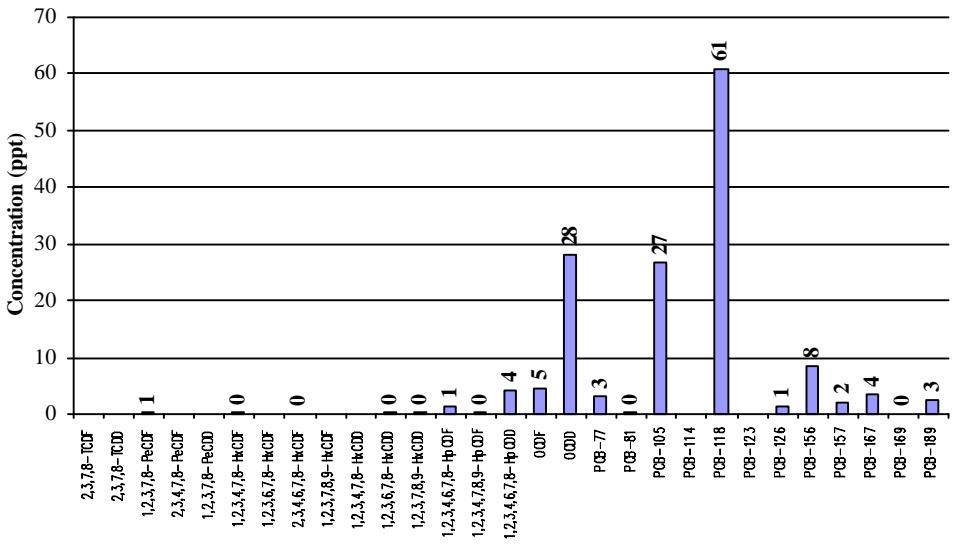
#### Full TEQs: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



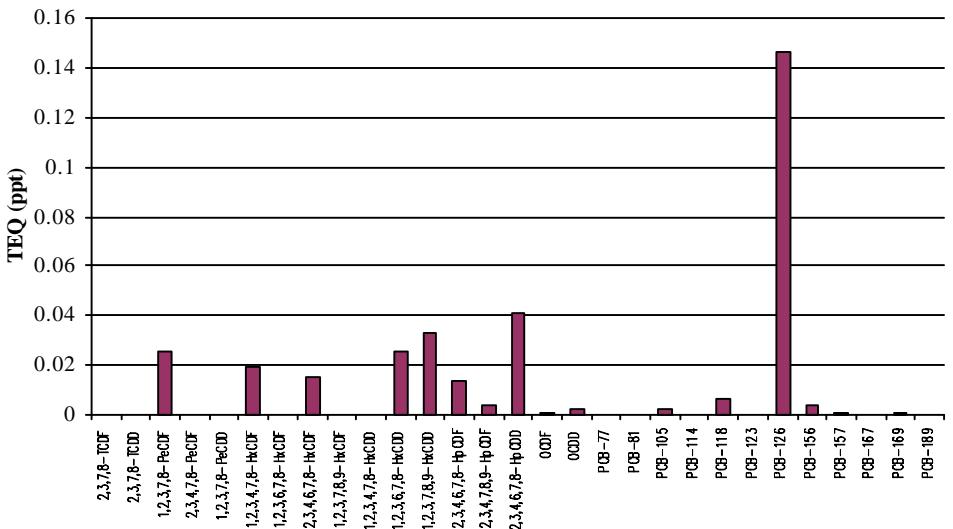
#### Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



#### Quantitative TEQs: Congener Profile

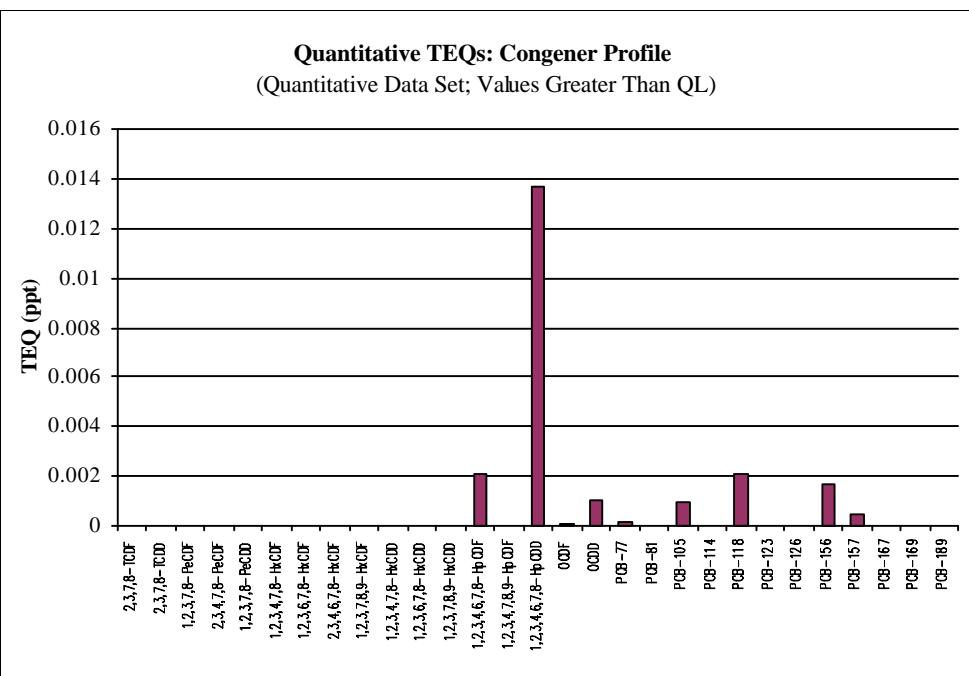
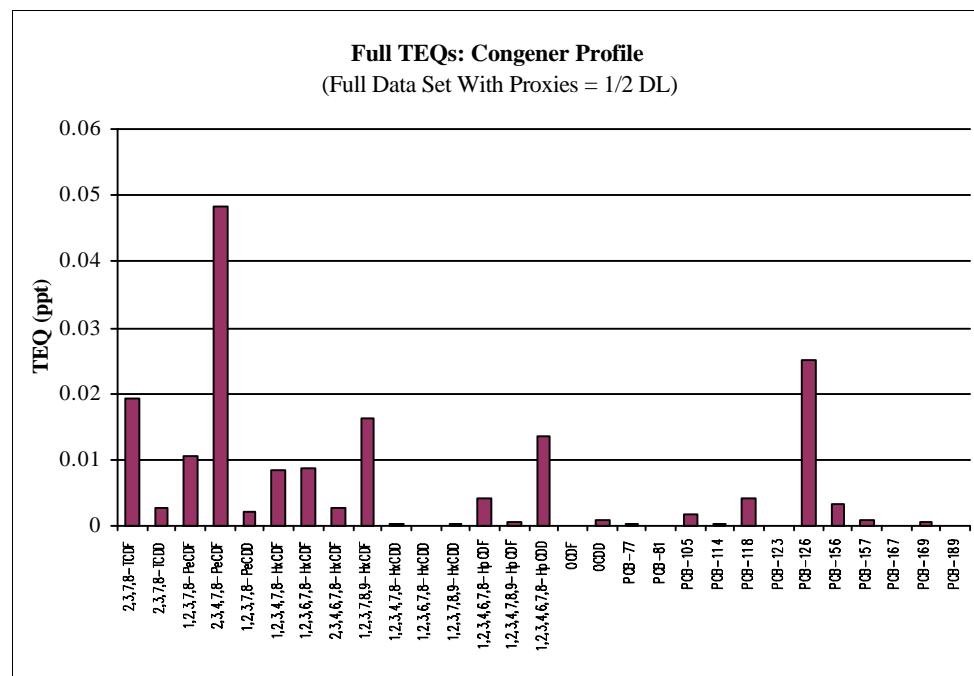
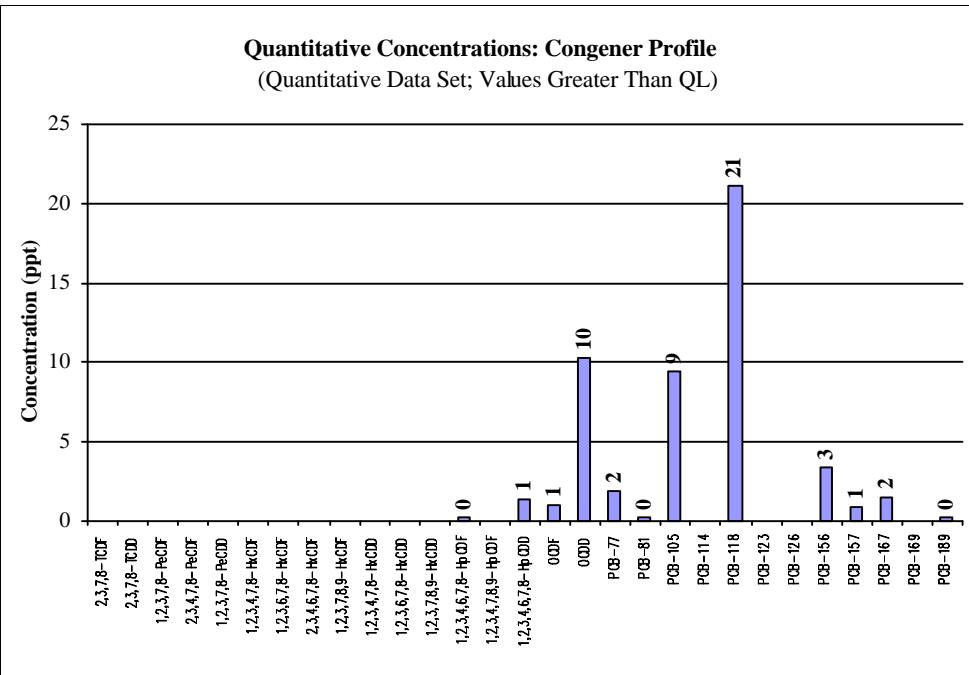
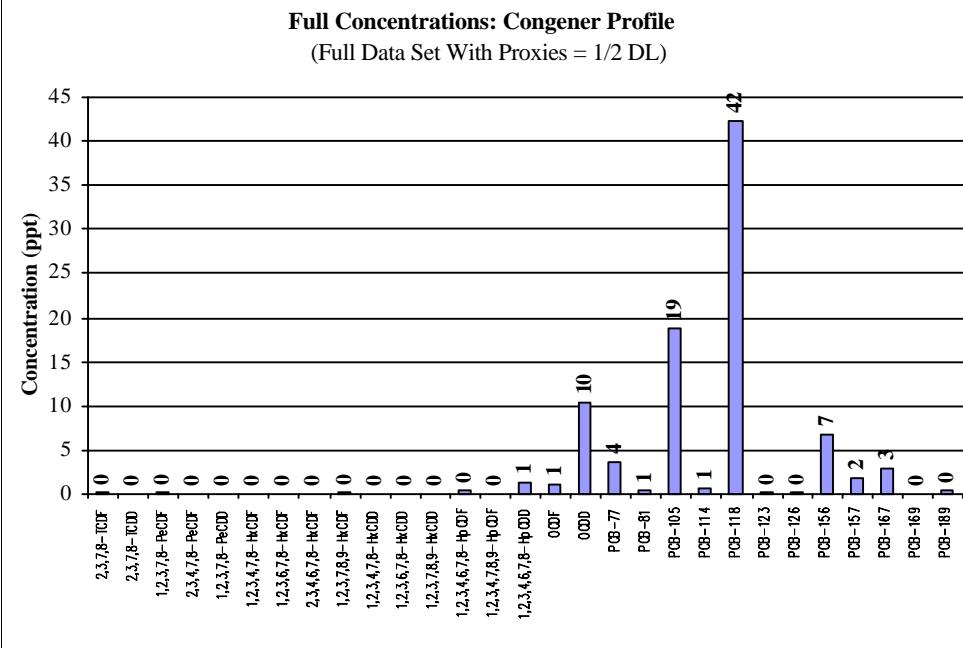
(Quantitative Data Set; Values Greater Than QL)



These results were used in congener pattern analysis.

Sample 847

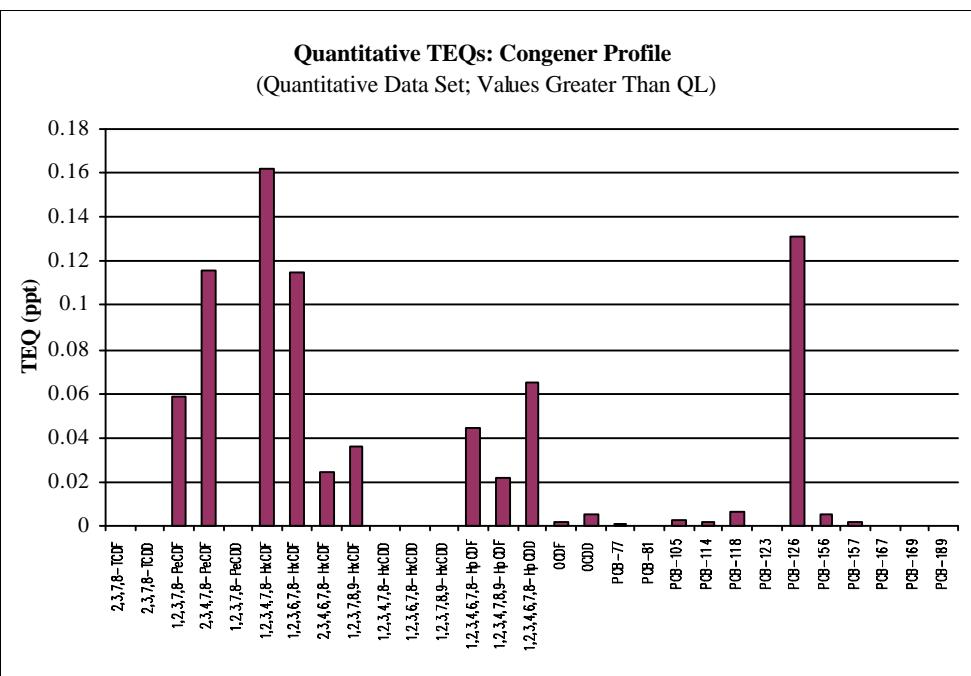
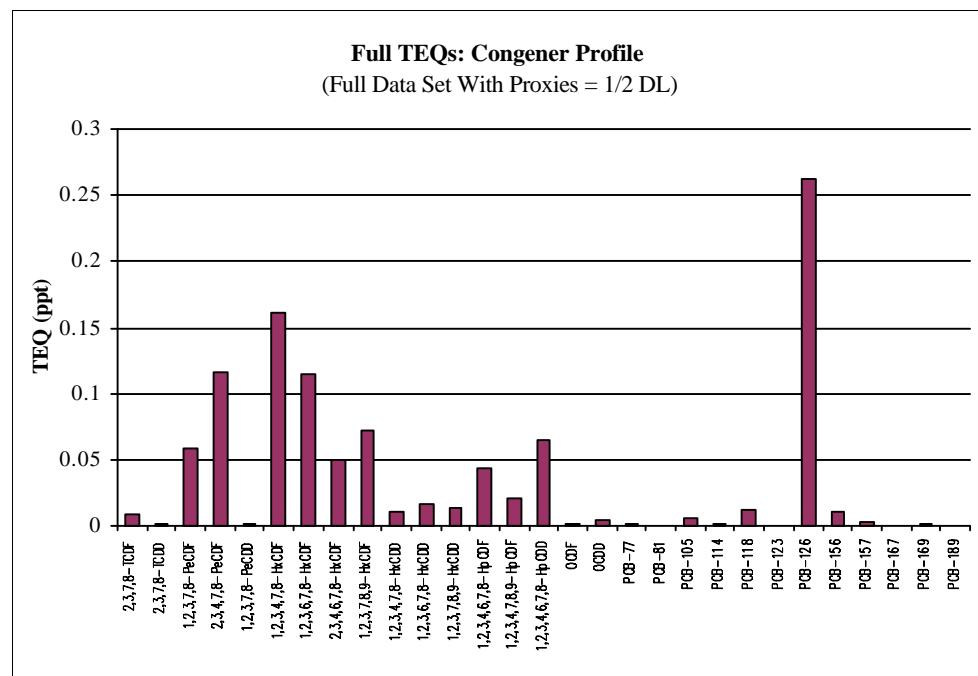
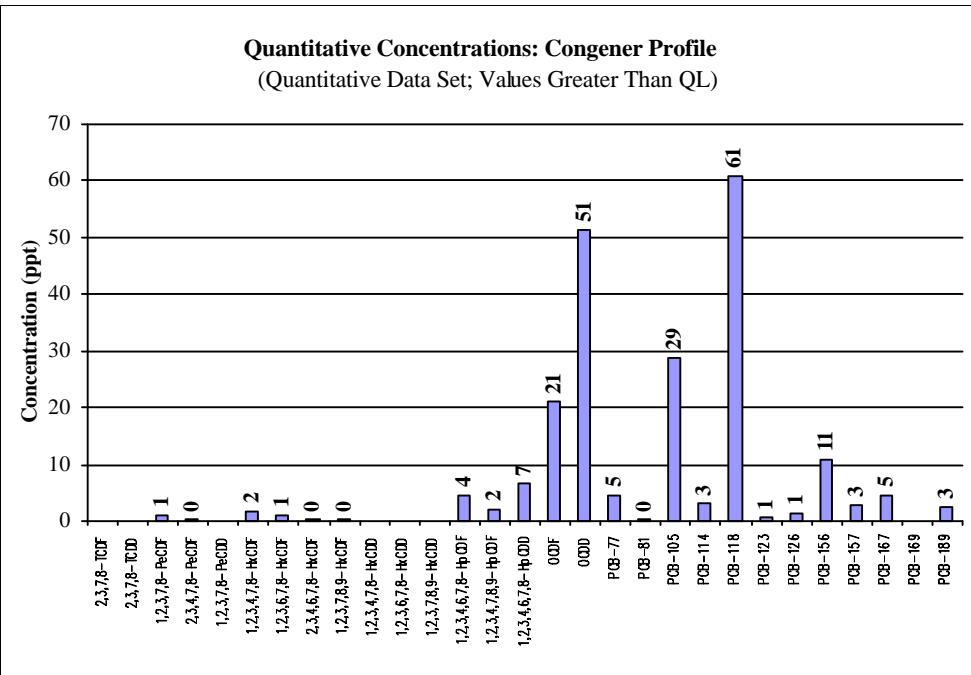
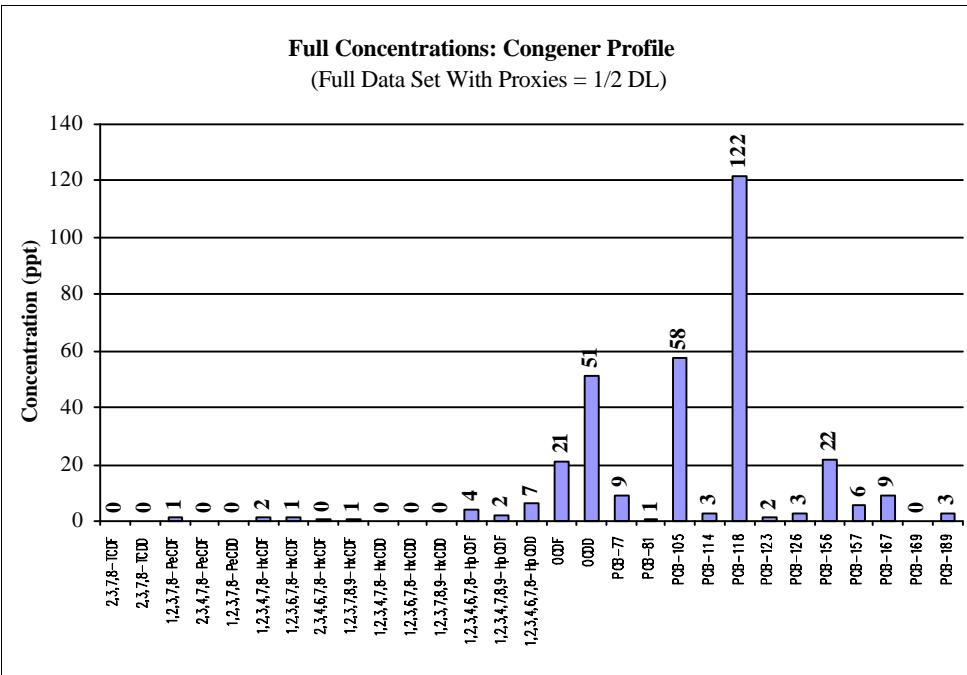
S25



These results were used in congener pattern analysis.

Sample 547

S26



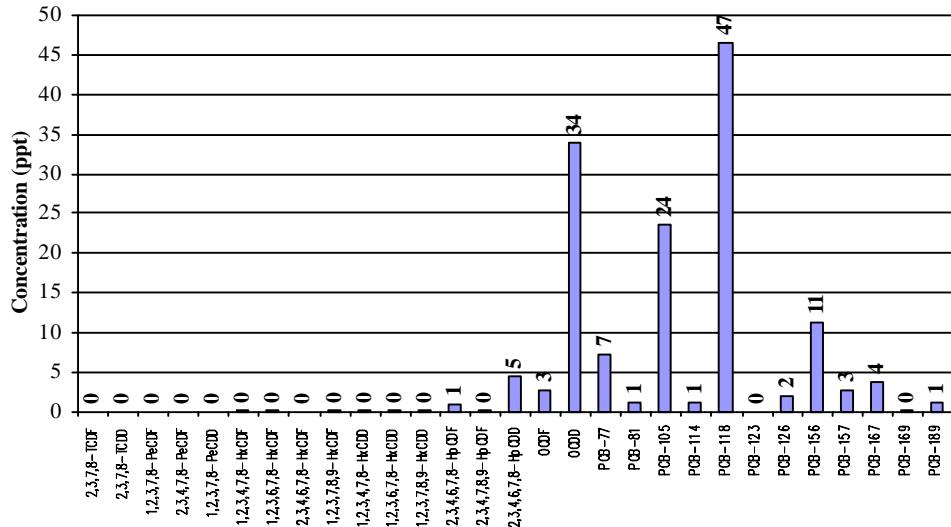
These results were used in congener pattern analysis.

Sample 768

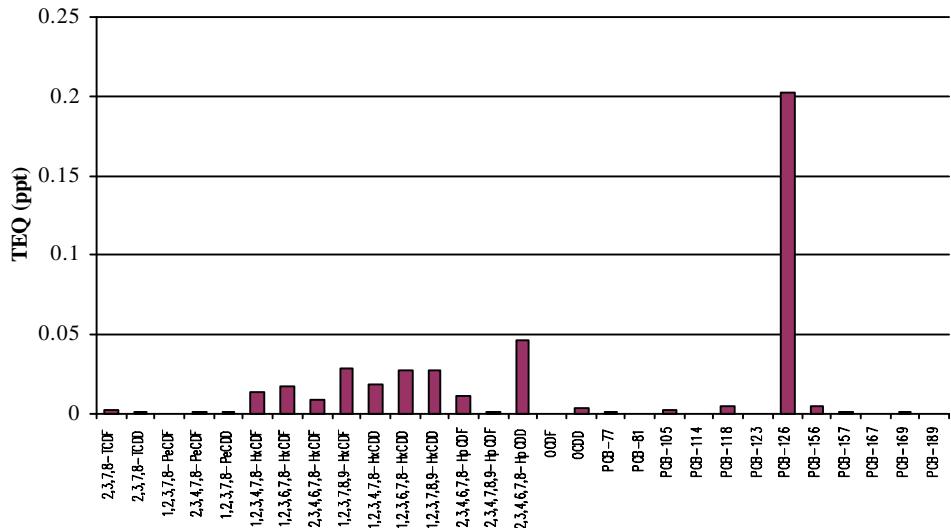
S27

## **Full Concentrations: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

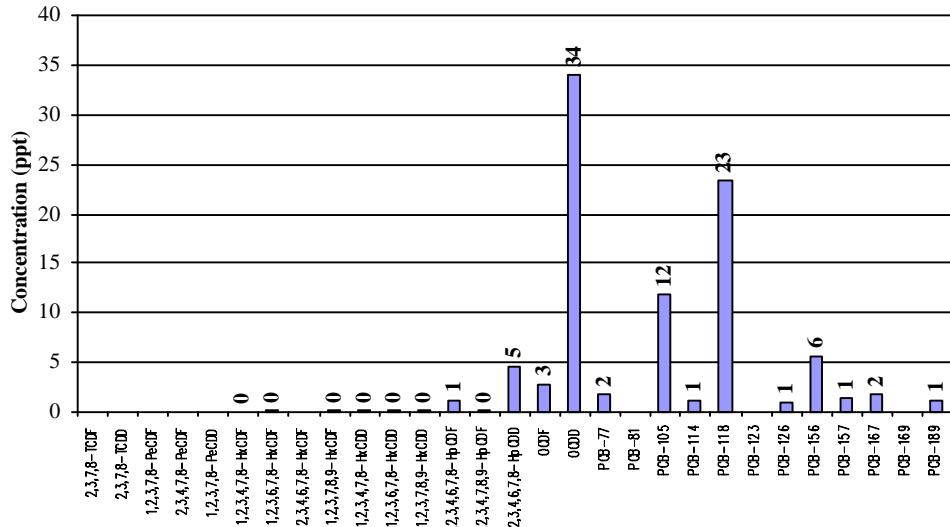


## **Full TEQs: Congener Profile**

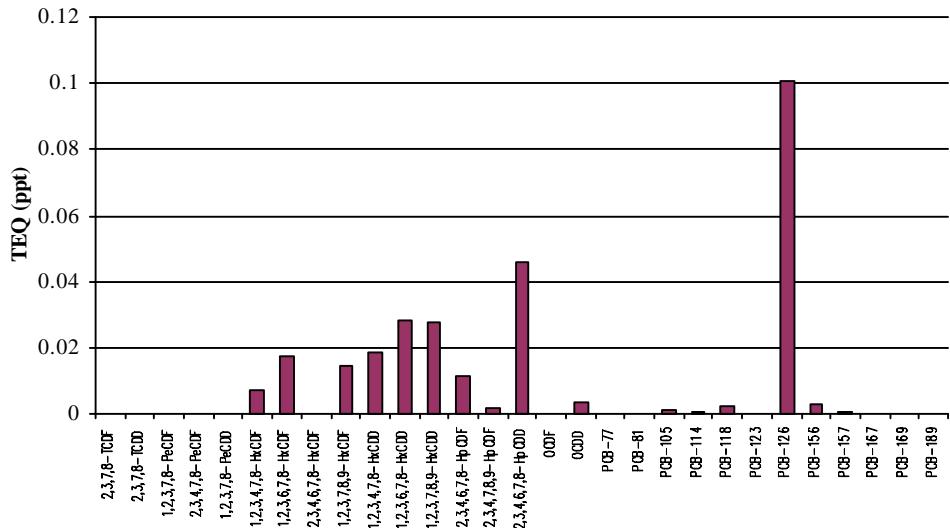


## **Quantitative Concentrations: Congener Profile**

(Quantitative Data Set; Values Greater Than QL)



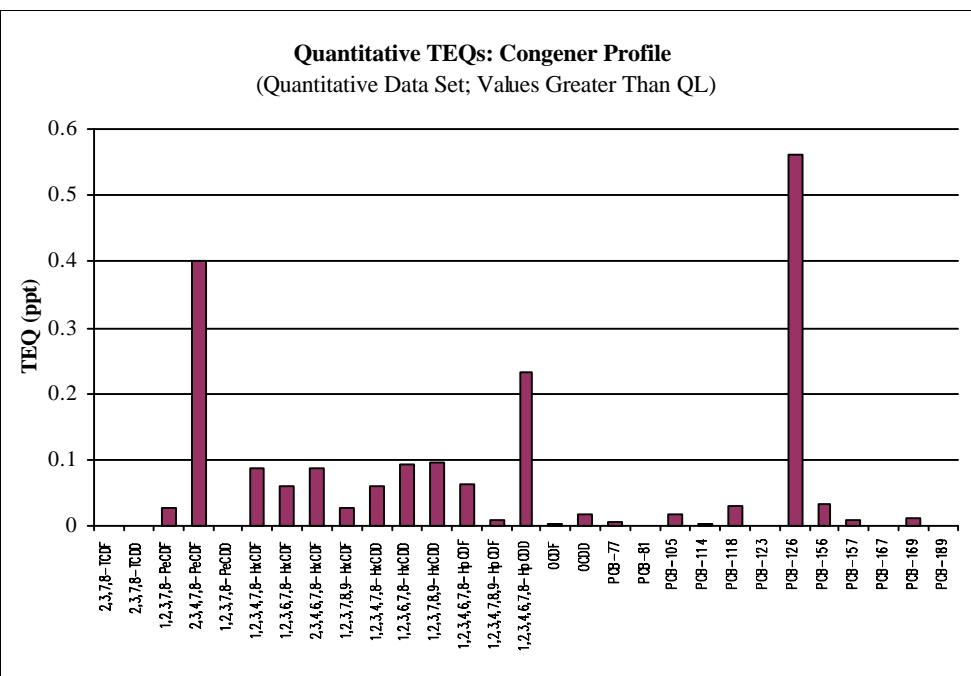
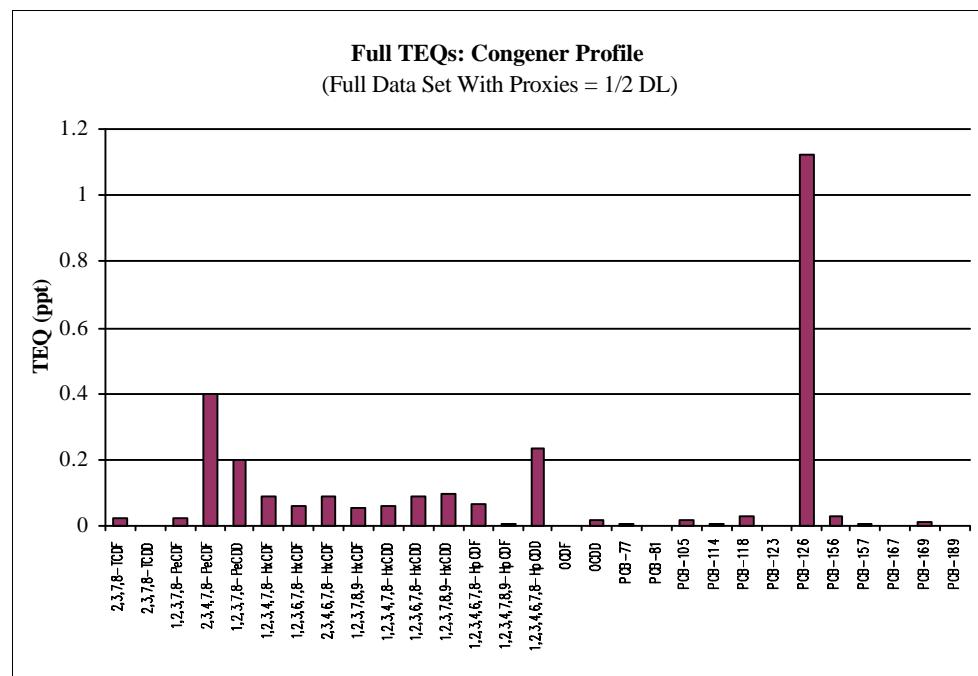
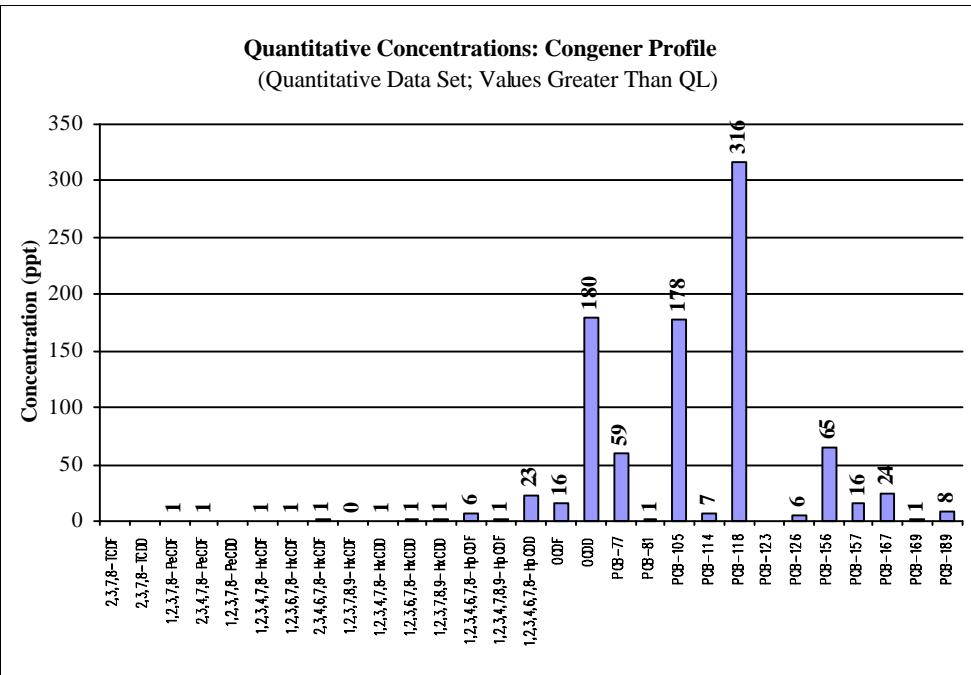
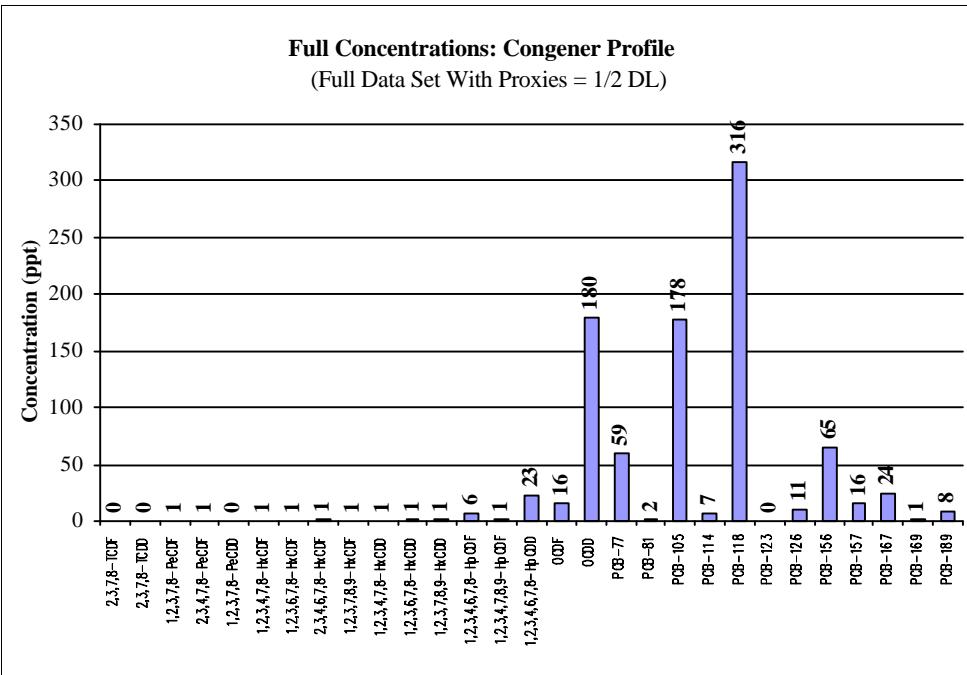
## **Quantitative TEQs: Congener Profile**



These results were used in congener pattern analysis.

*Sample 264*

S28

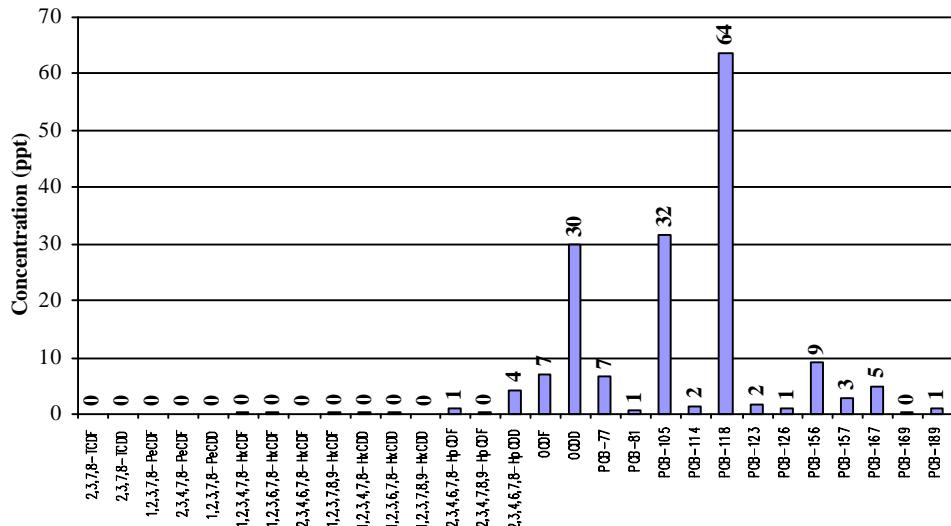


These results were used in congener pattern analysis.

Sample 443

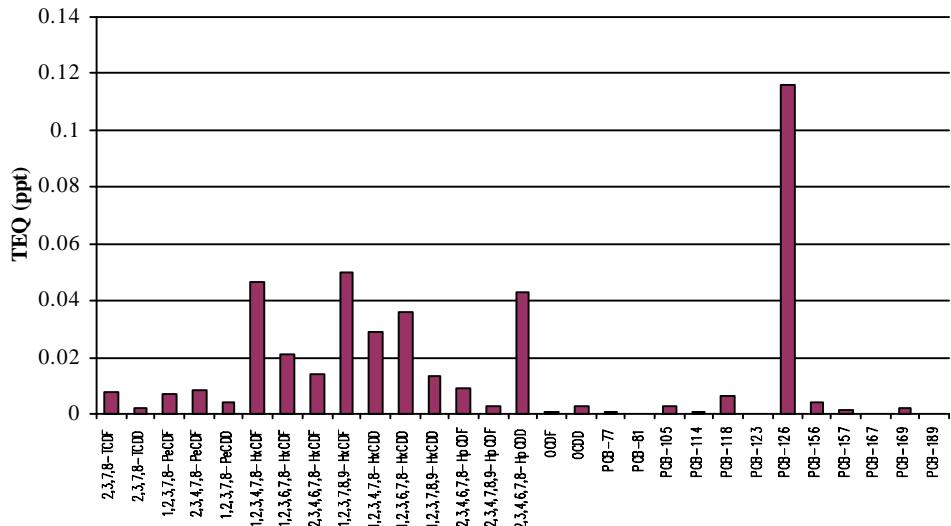
S29

## Full Concentrations: Congener Profile (Full Data Set With Proxies = 1/2 DL)

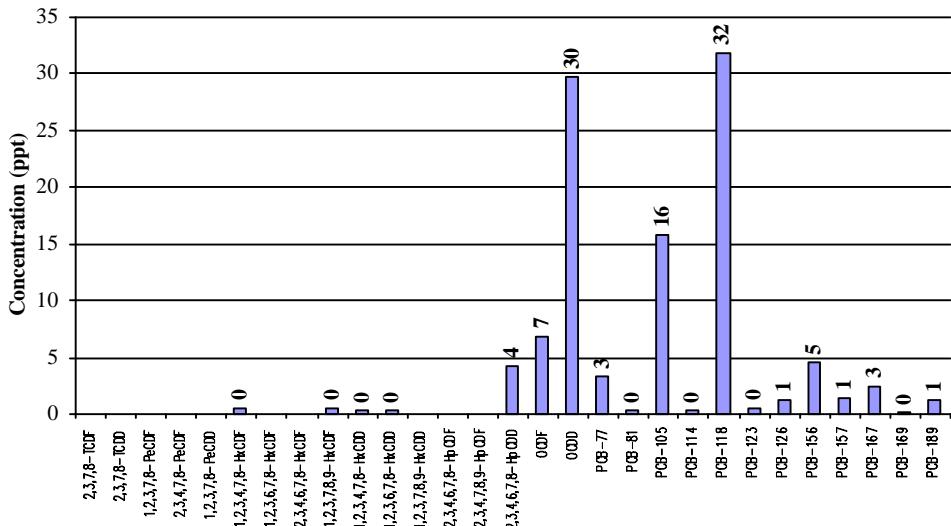


## **Full TEQs: Congener Profile**

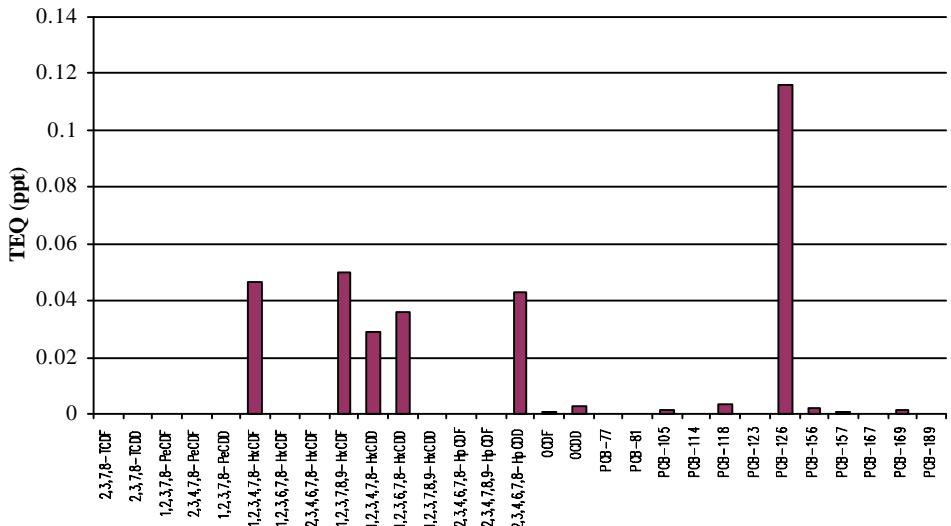
(Full Data Set With Proxies = 1/2 DL)



## **Quantitative Concentrations: Congener Profile**



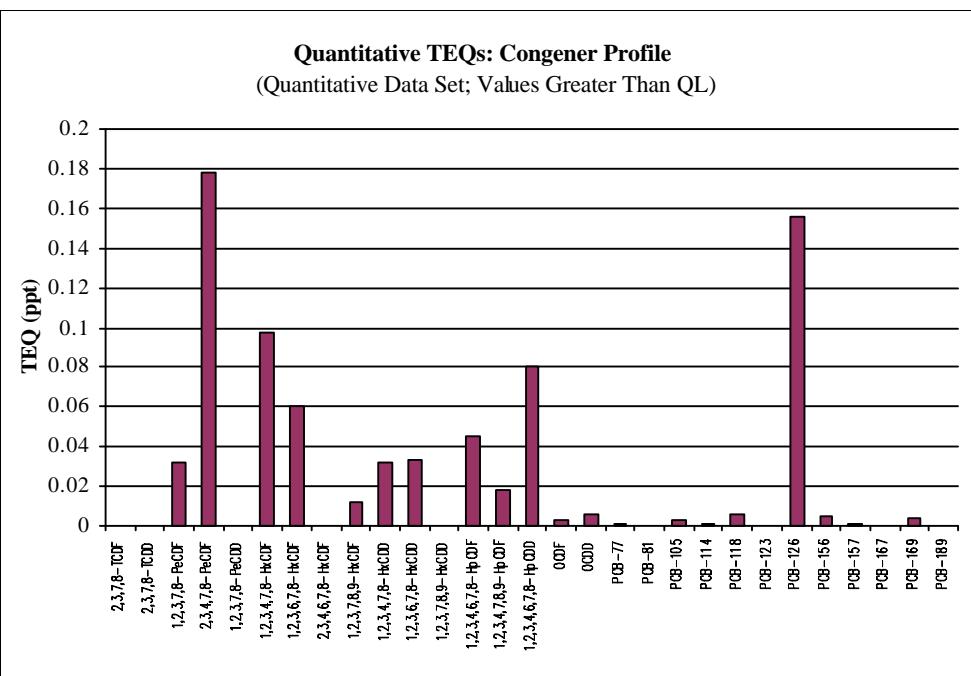
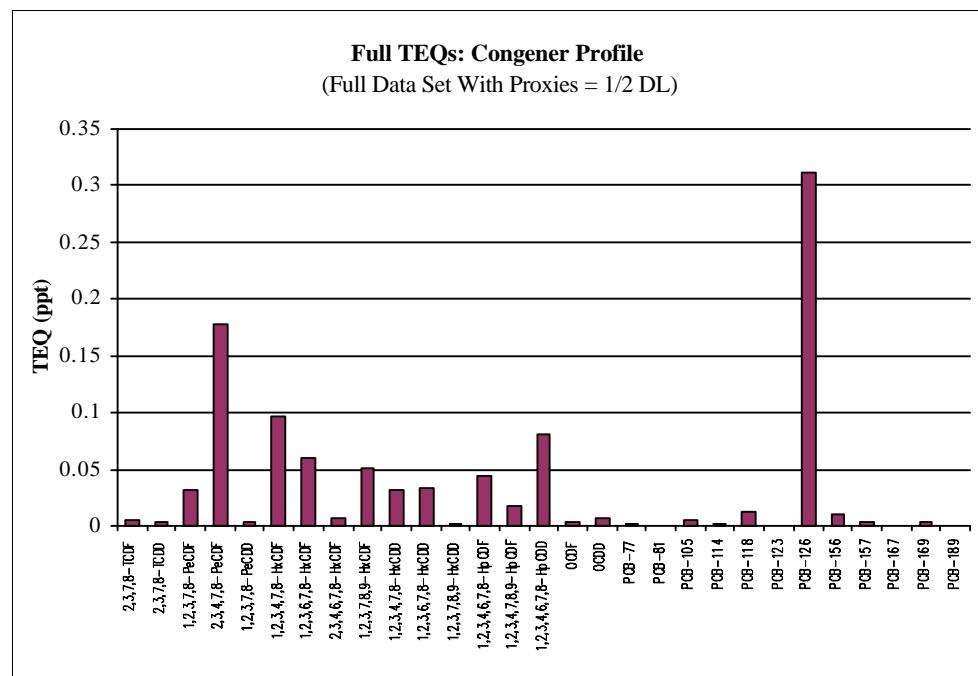
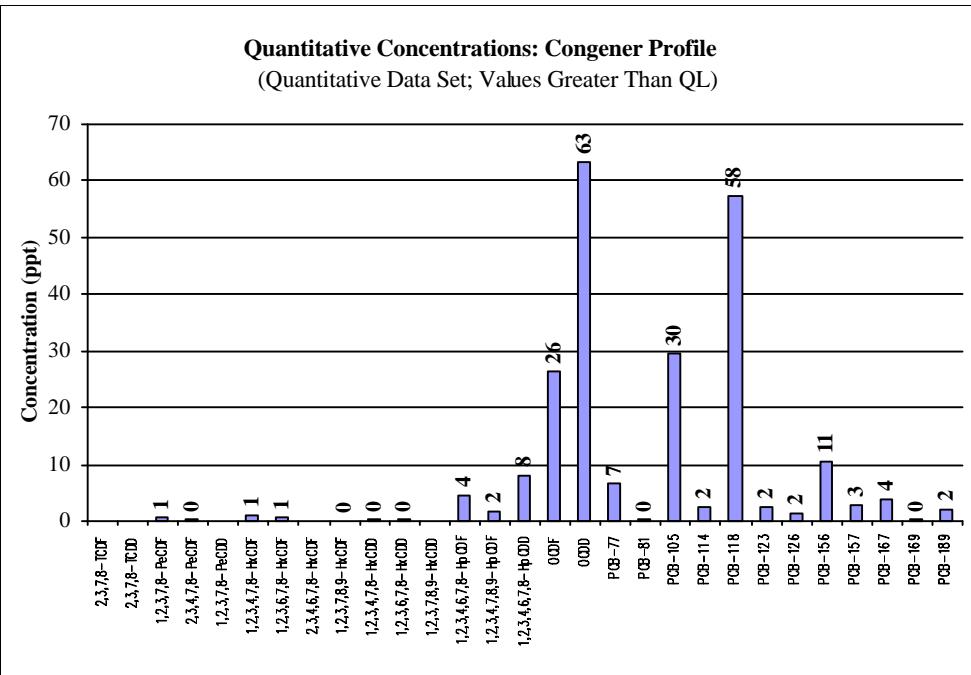
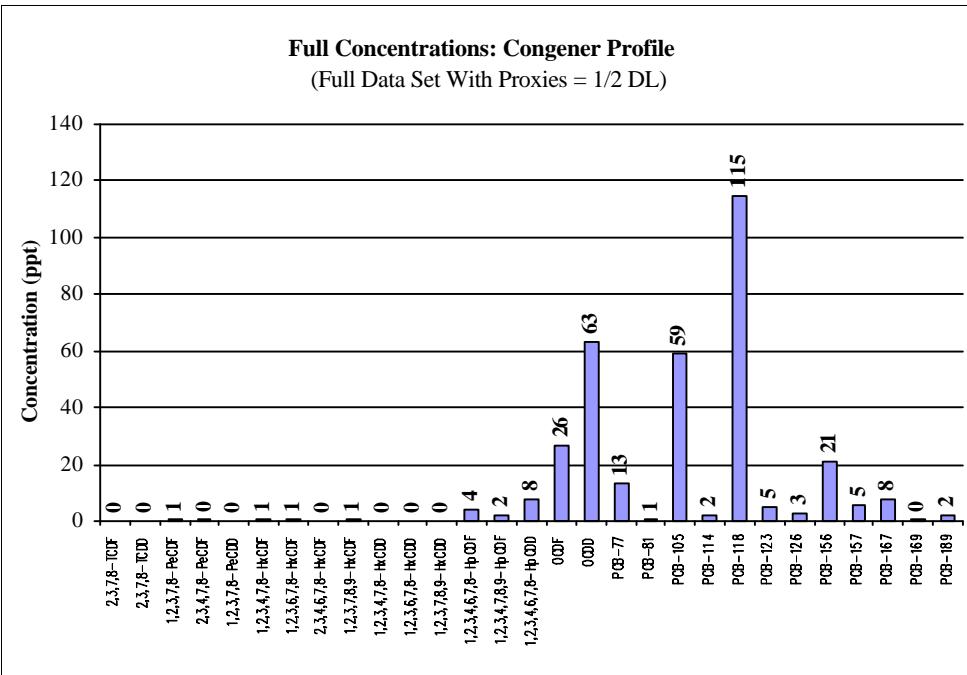
## **Quantitative TEQs: Congener Profile**



These results were used in congener pattern analysis.

Sample 641

S3



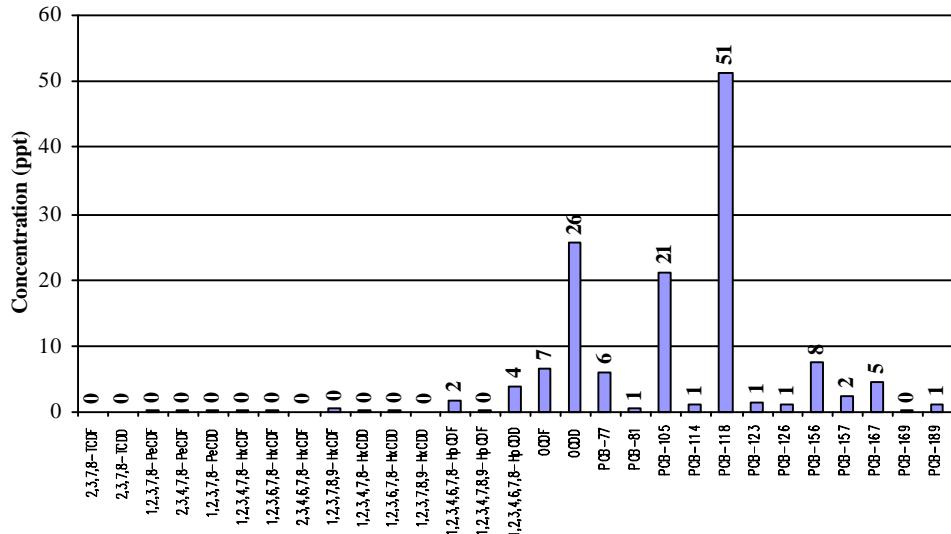
These results were used in congener pattern analysis.

Sample 736

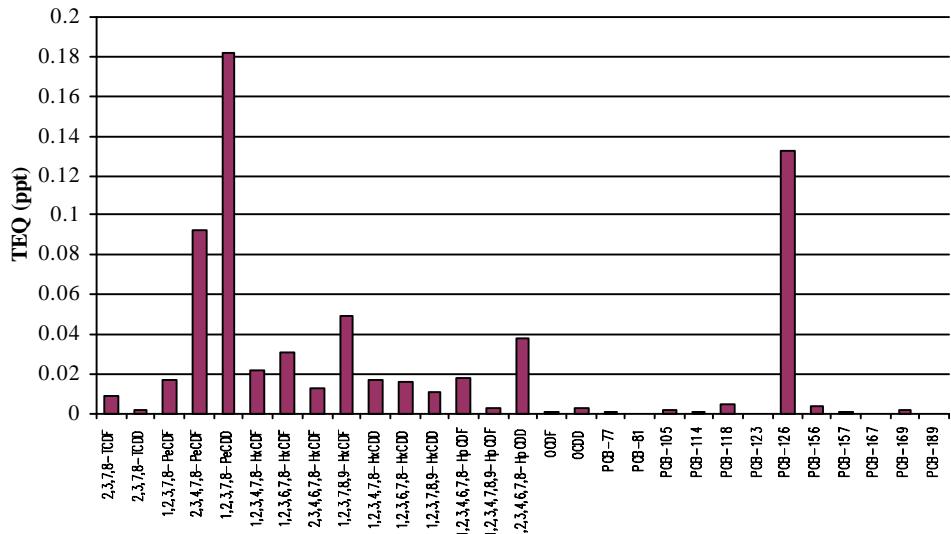
S30

## **Full Concentrations: Congener Profile**

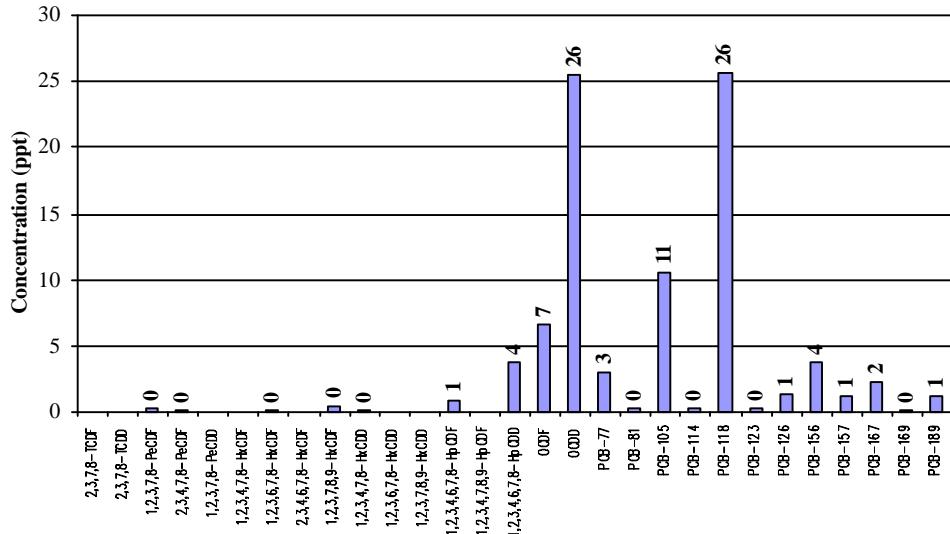
(Full Data Set With Proxies = 1/2 DL)



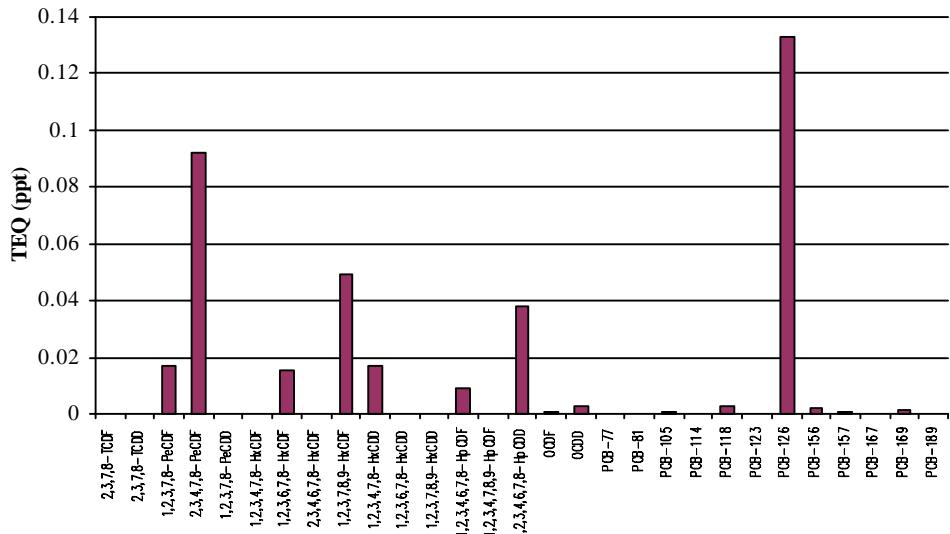
## **Full TEQs: Congener Profile**



## **Quantitative Concentrations: Congener Profile**



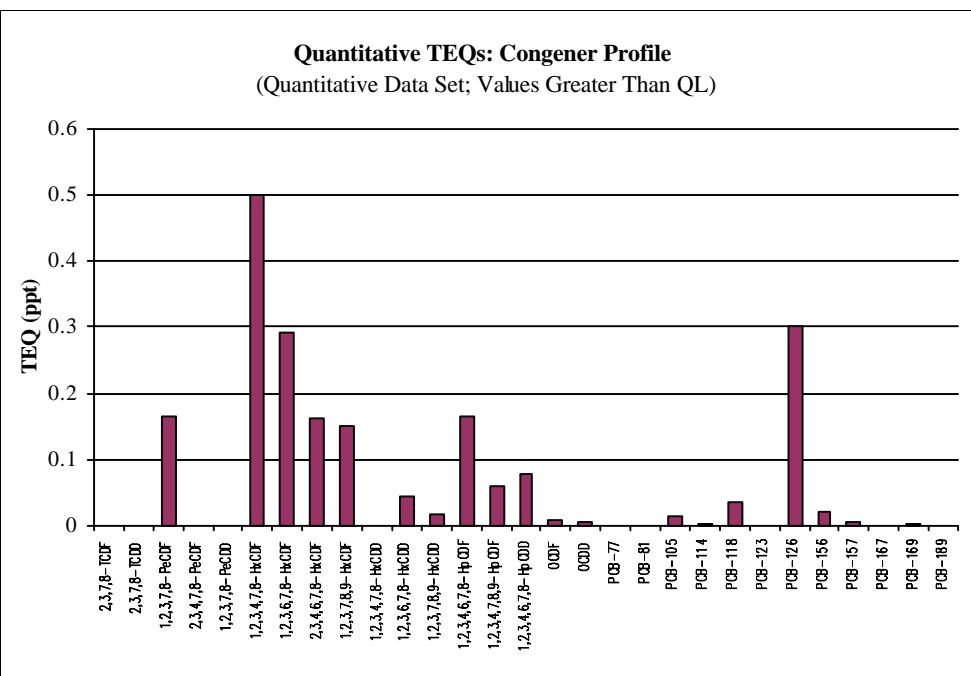
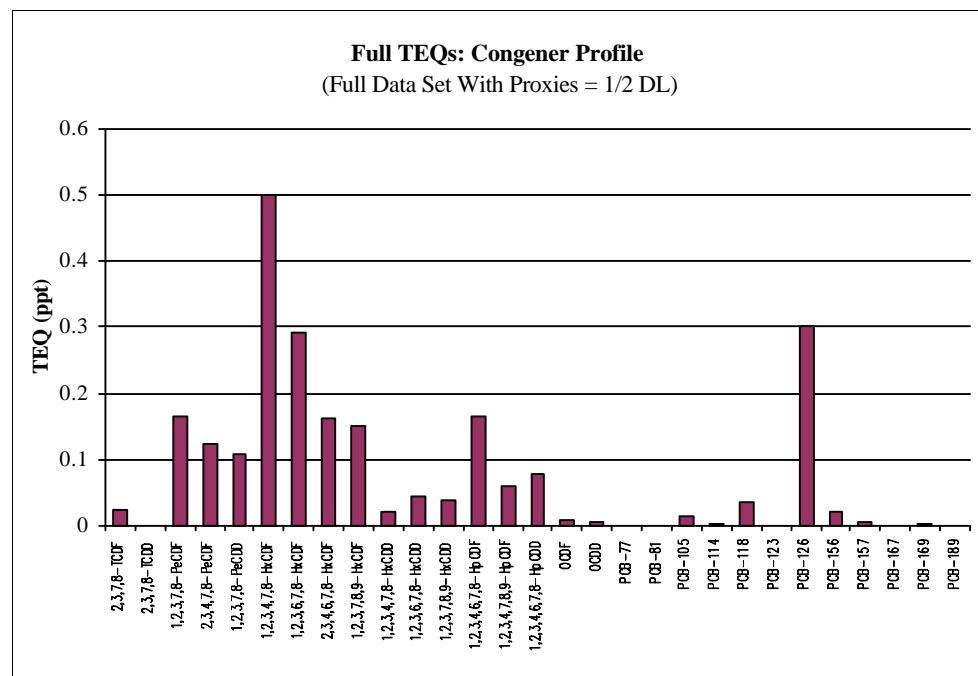
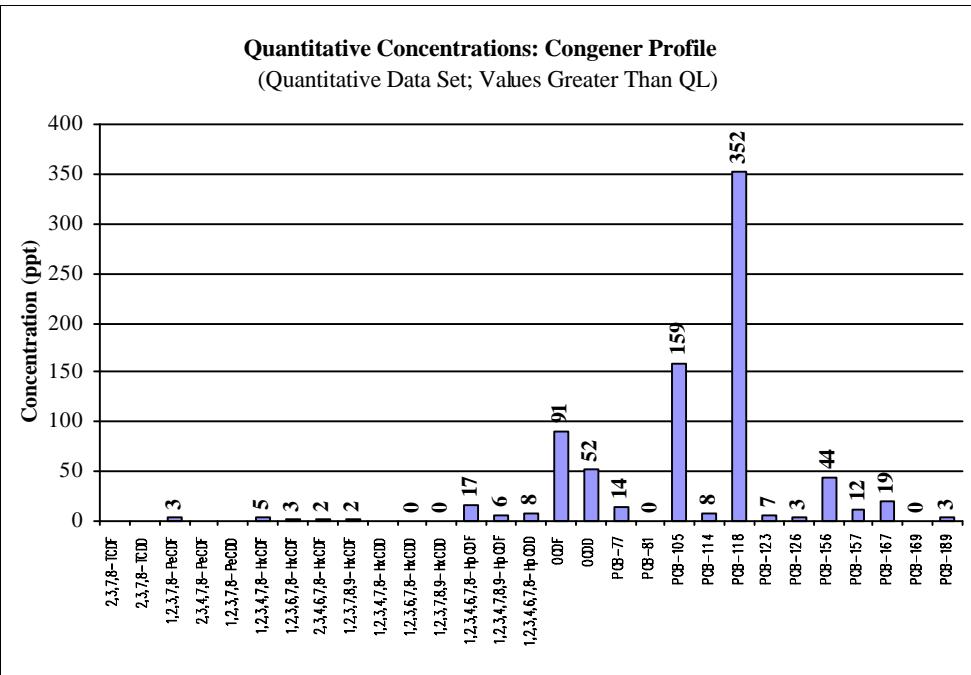
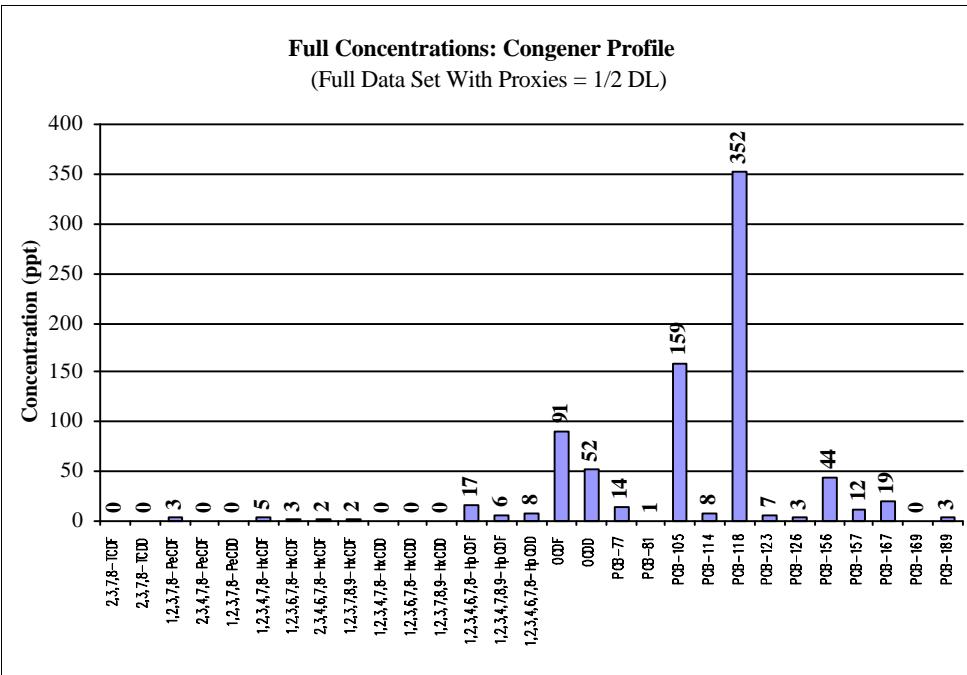
## **Quantitative TEQs: Congener Profile**



These results were used in congener pattern analysis.

*Sample 616*

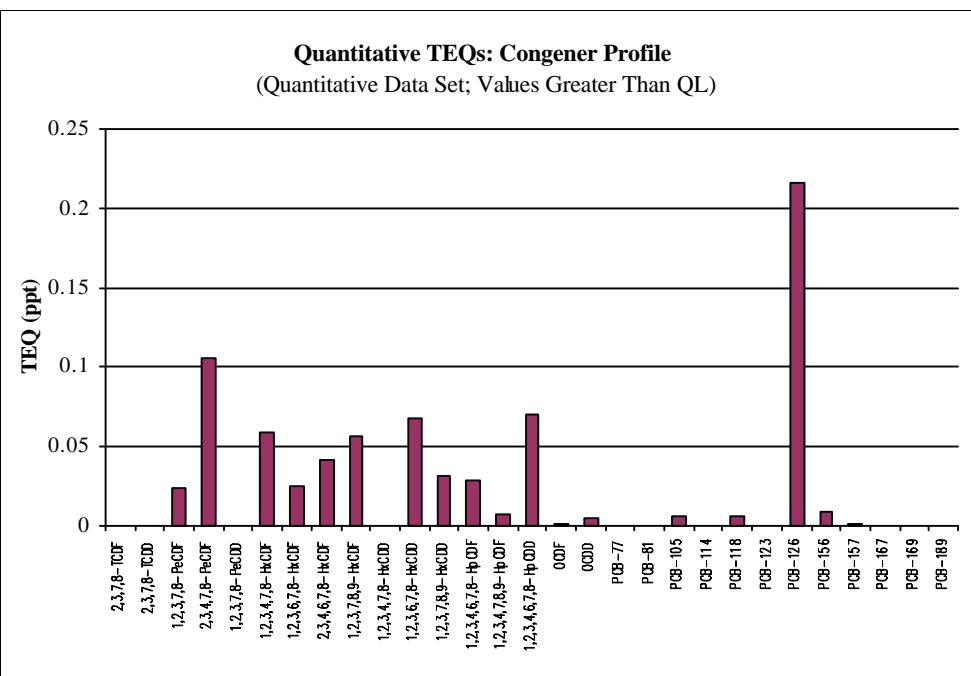
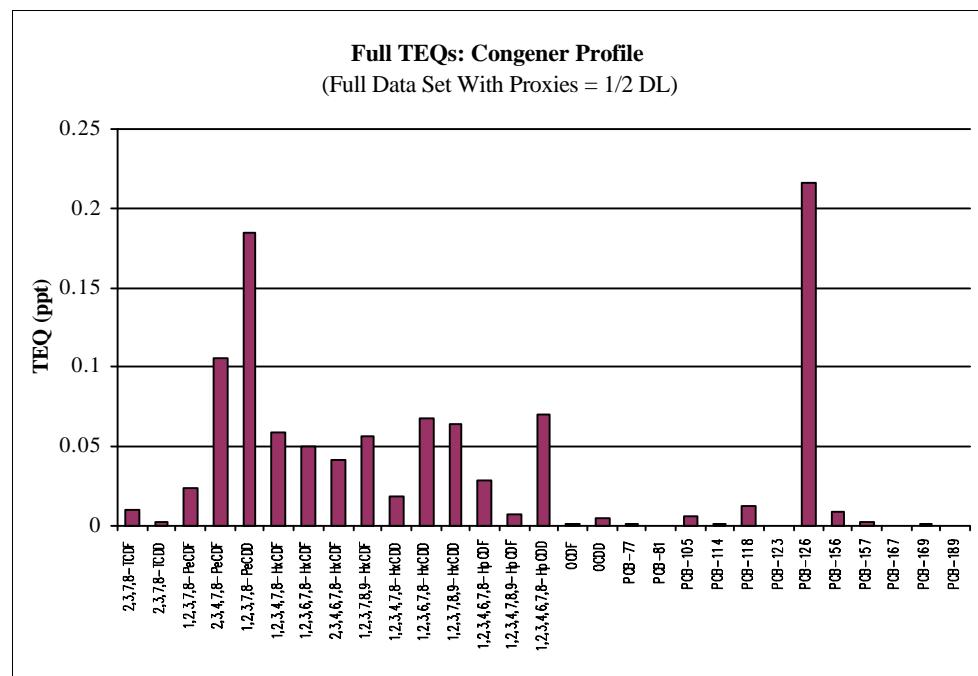
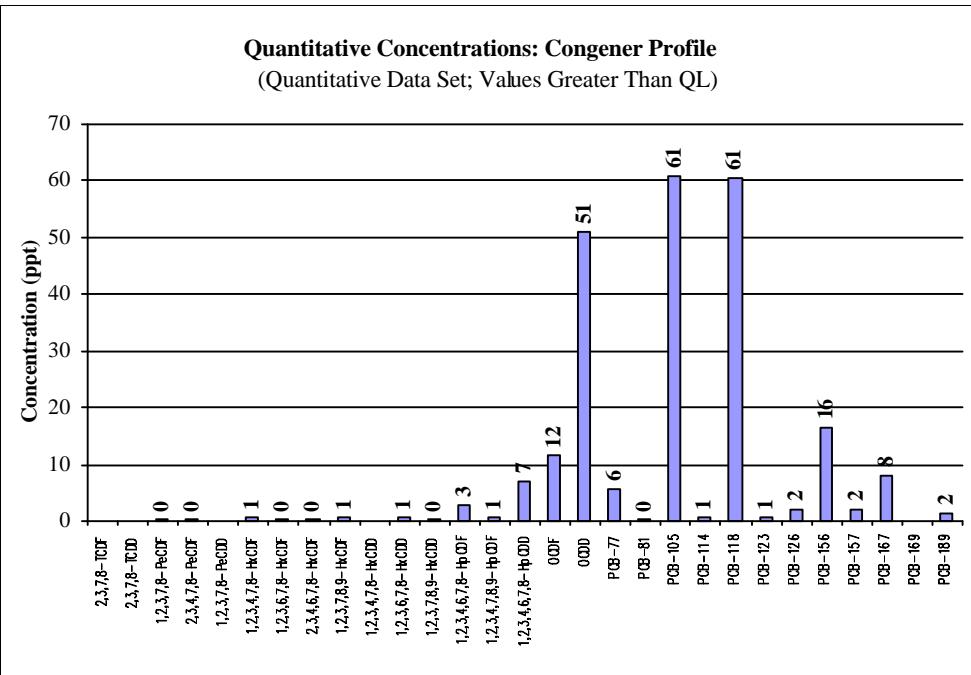
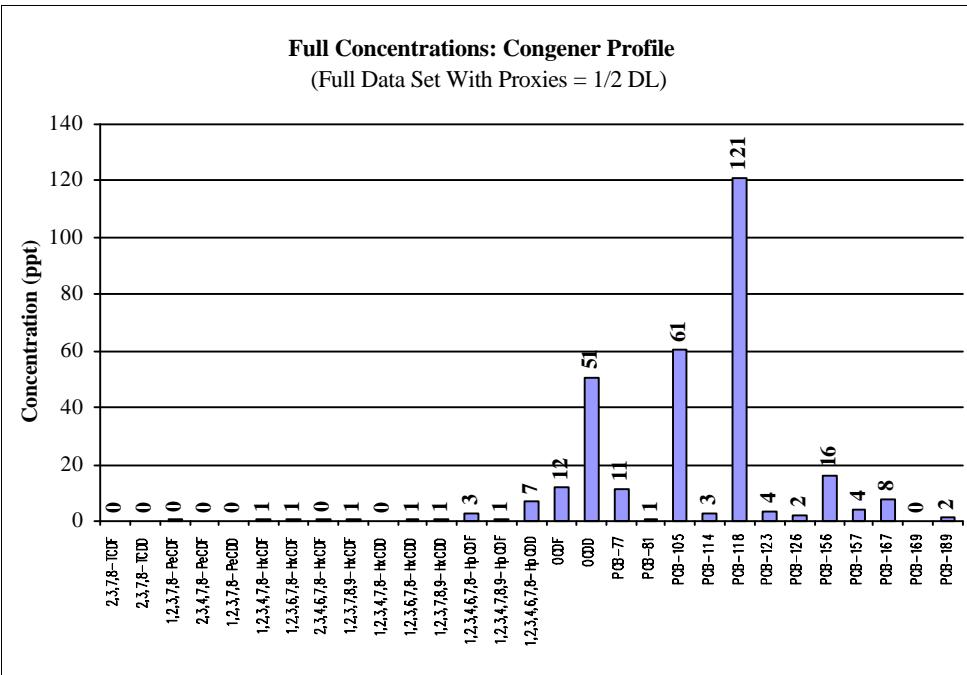
S31



These results were used in congener pattern analysis.

Sample 945

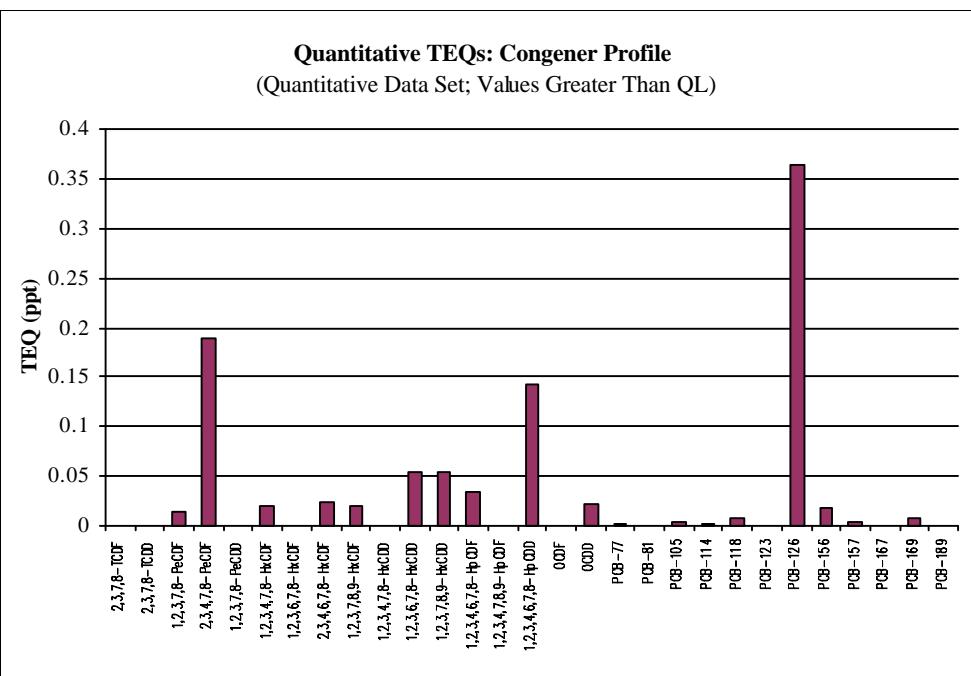
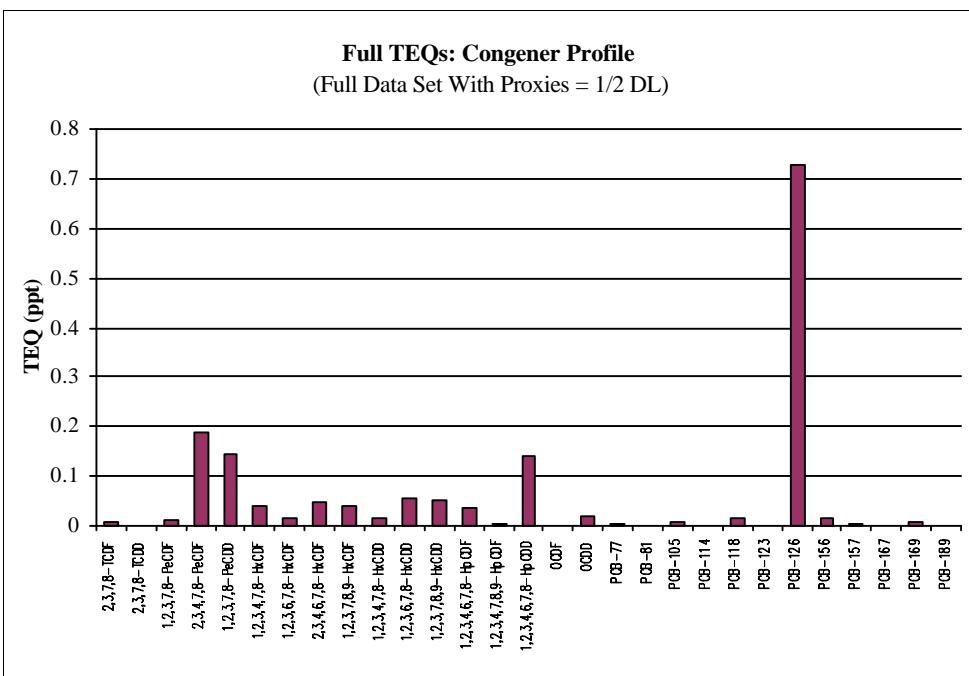
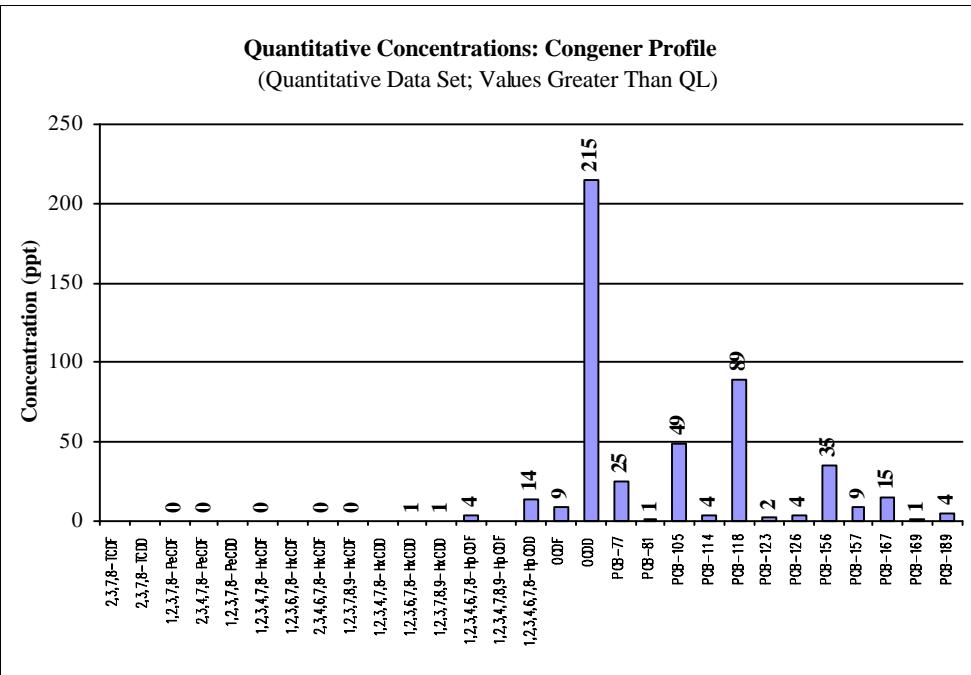
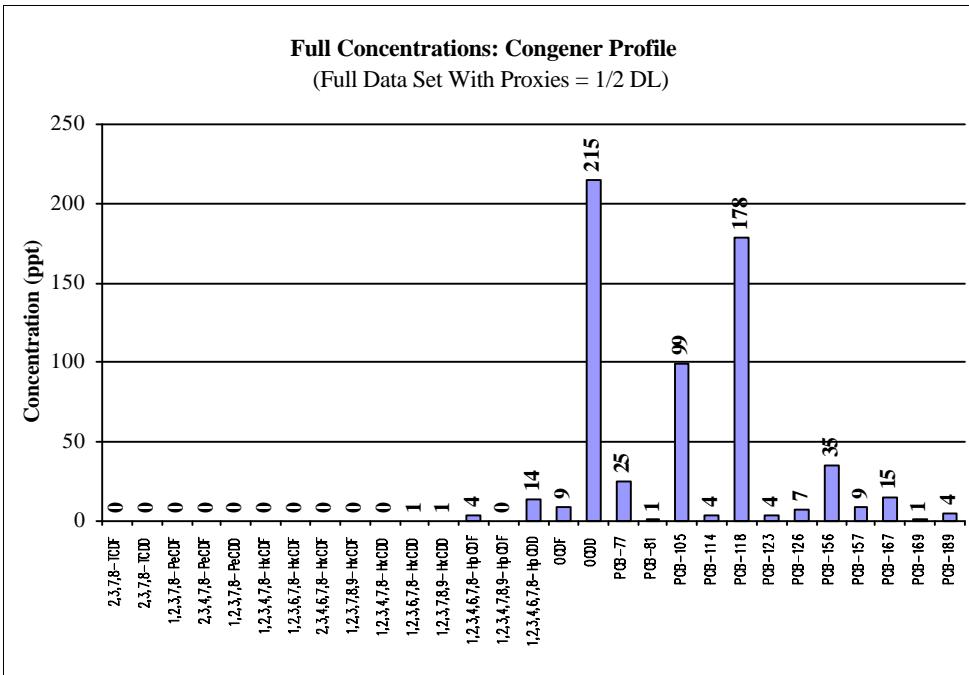
S32



These results were used in congener pattern analysis.

Sample 564

S33

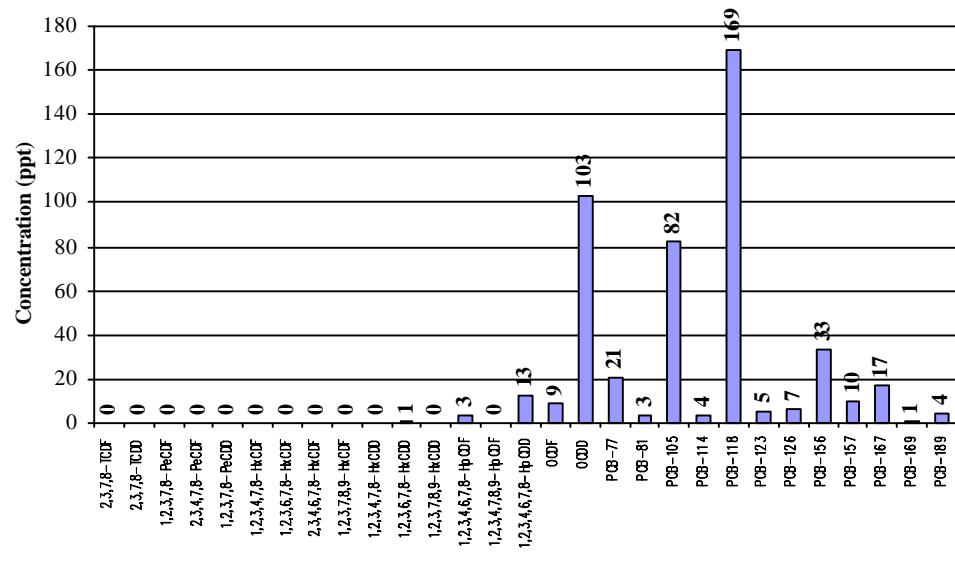


These results were used in congener pattern analysis.

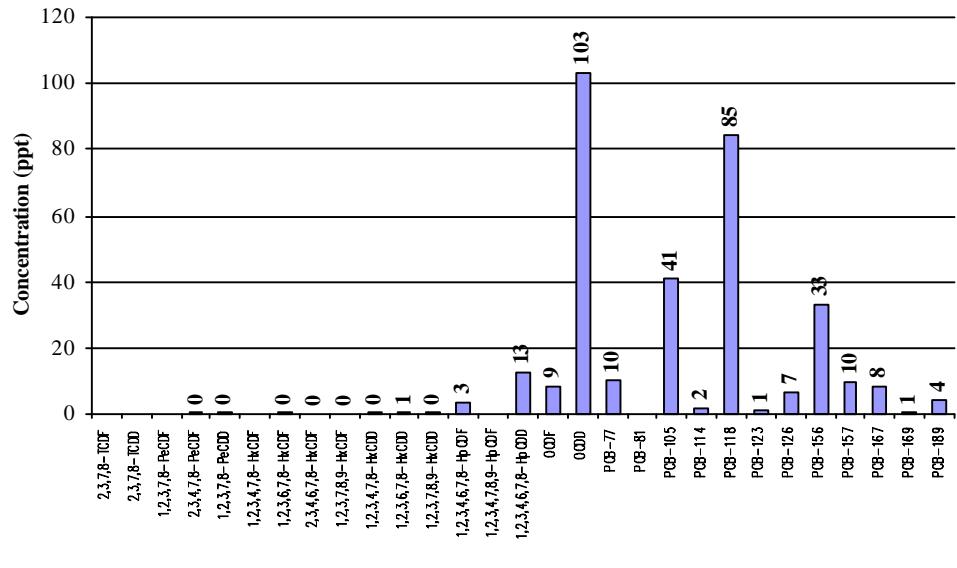
### Sample 693

### S34

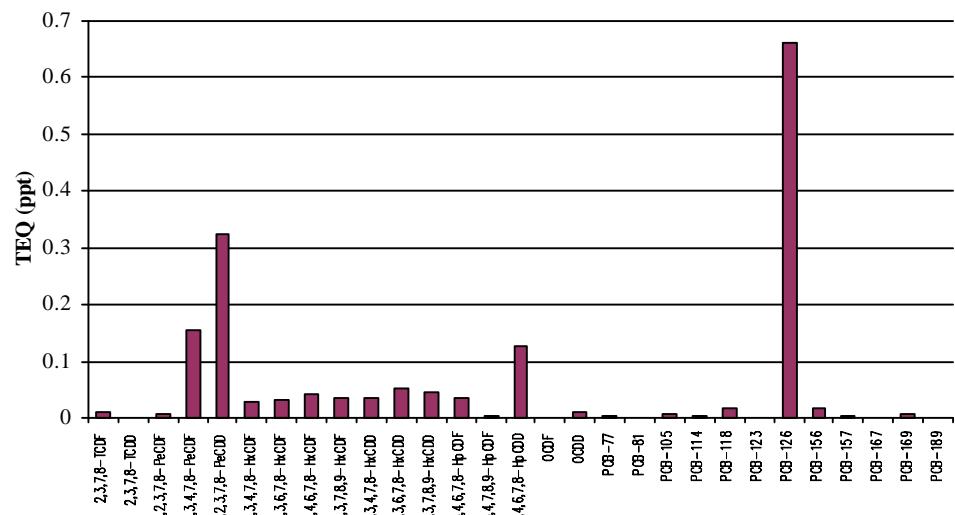
**Full Concentrations: Congener Profile**  
(Full Data Set With Proxies = 1/2 DL)



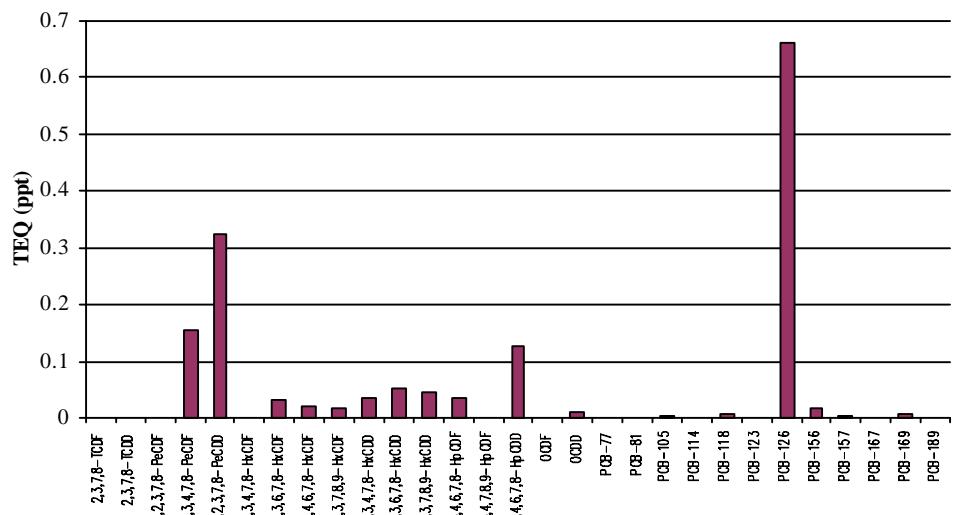
**Quantitative Concentrations: Congener Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Congener Profile**  
(Full Data Set With Proxies = 1/2 DL)



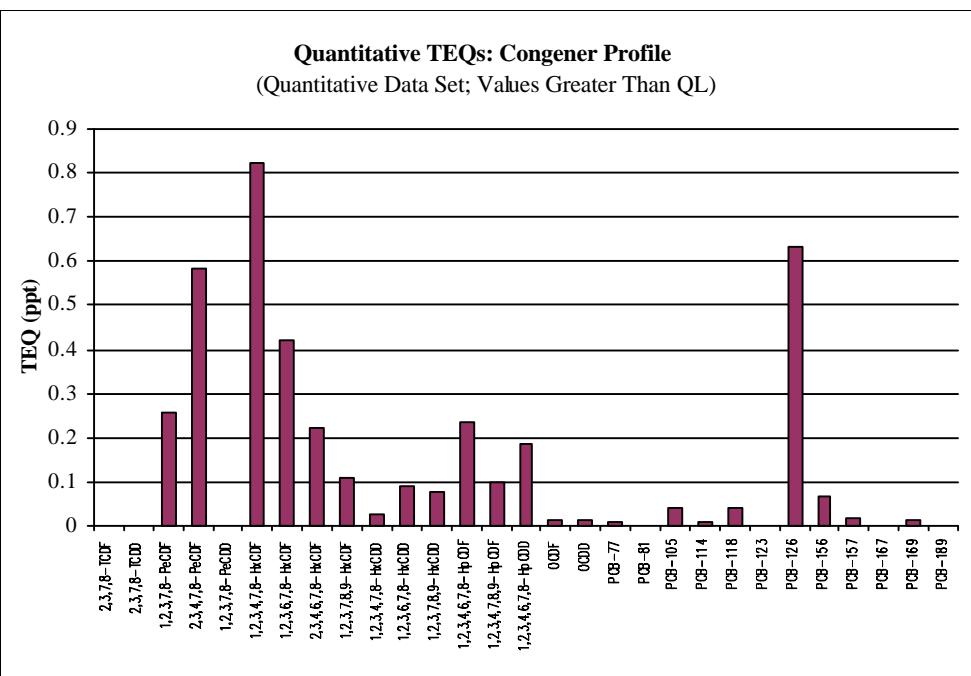
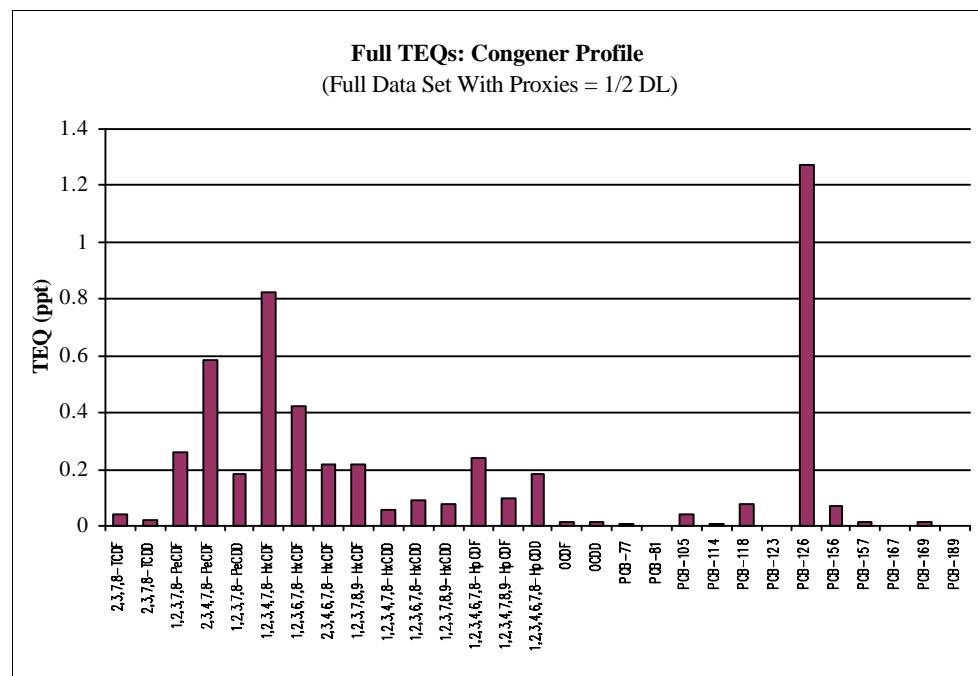
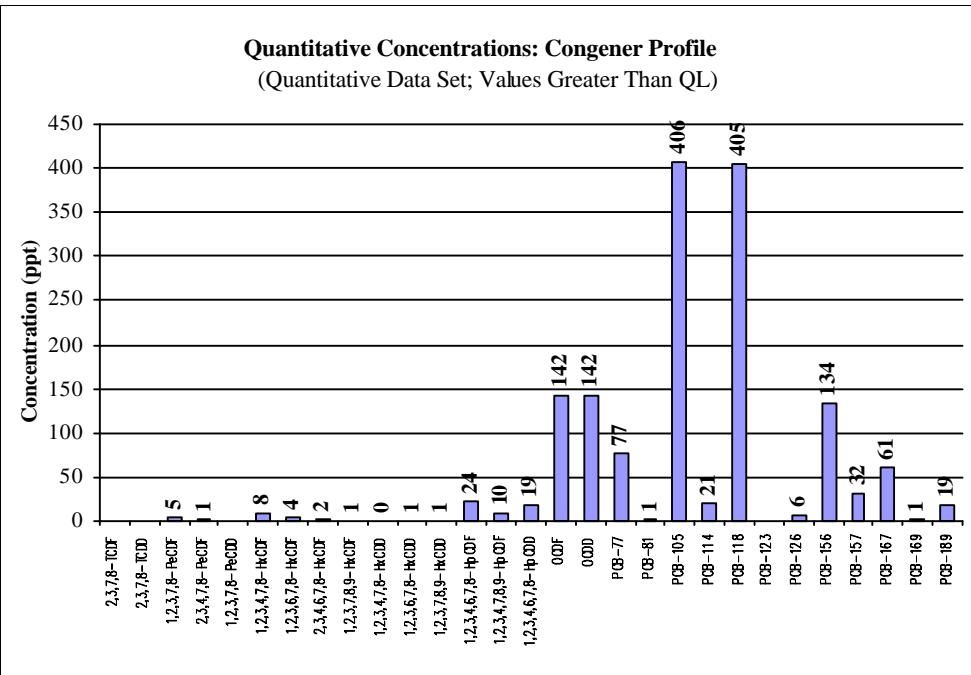
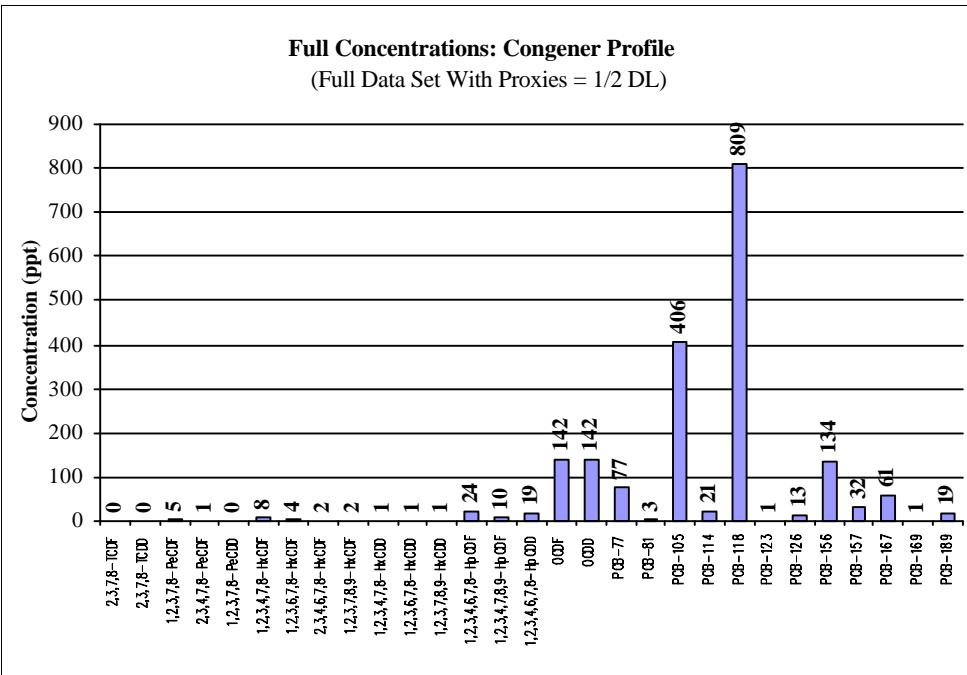
**Quantitative TEQs: Congener Profile**  
(Quantitative Data Set; Values Greater Than QL)



These results were used in congener pattern analysis.

Sample 389

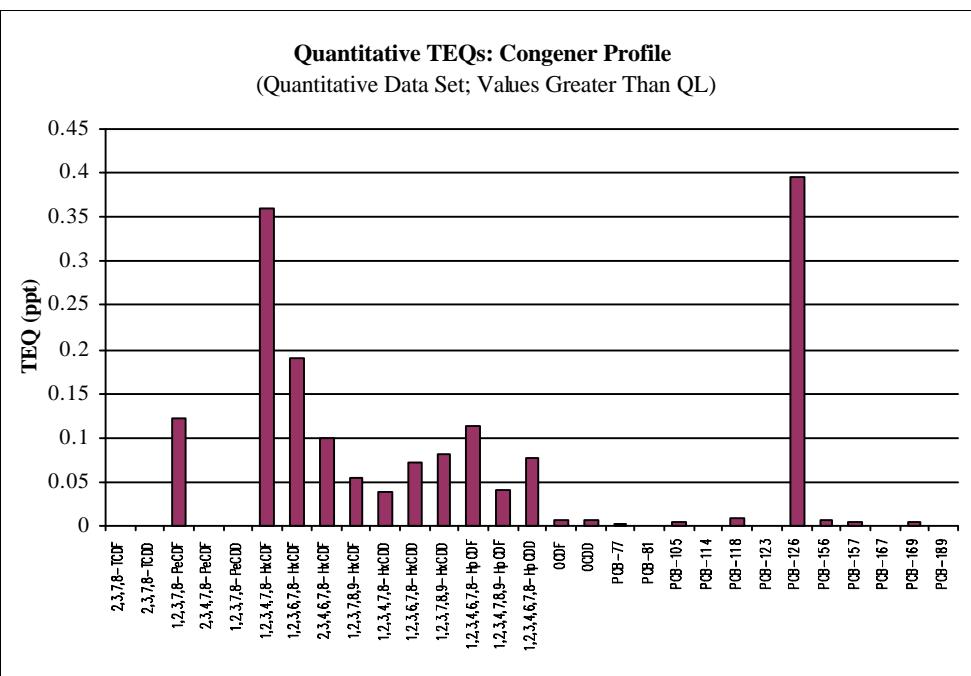
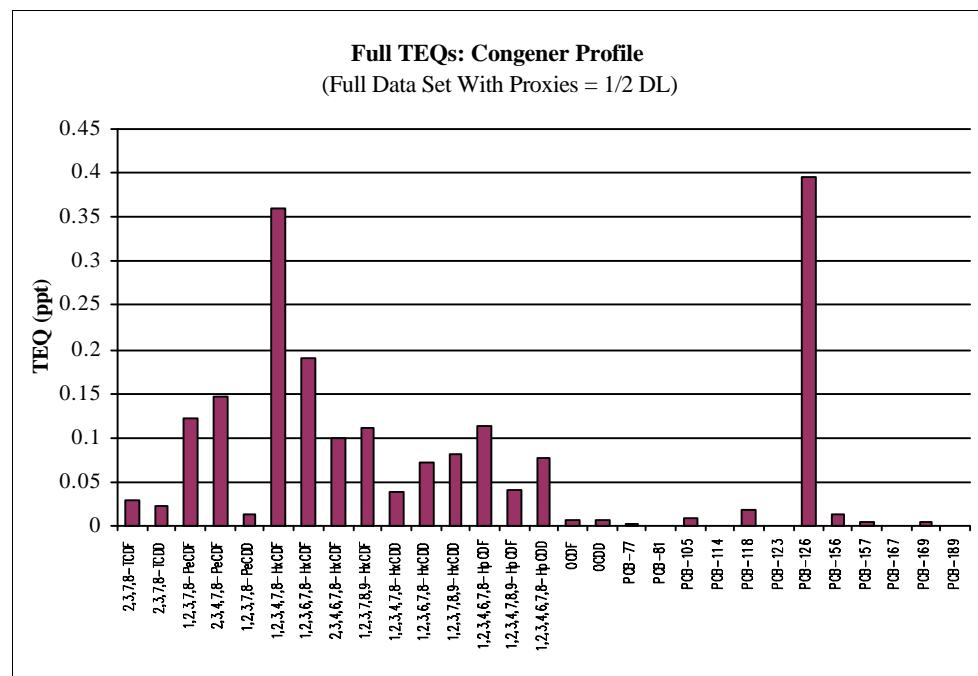
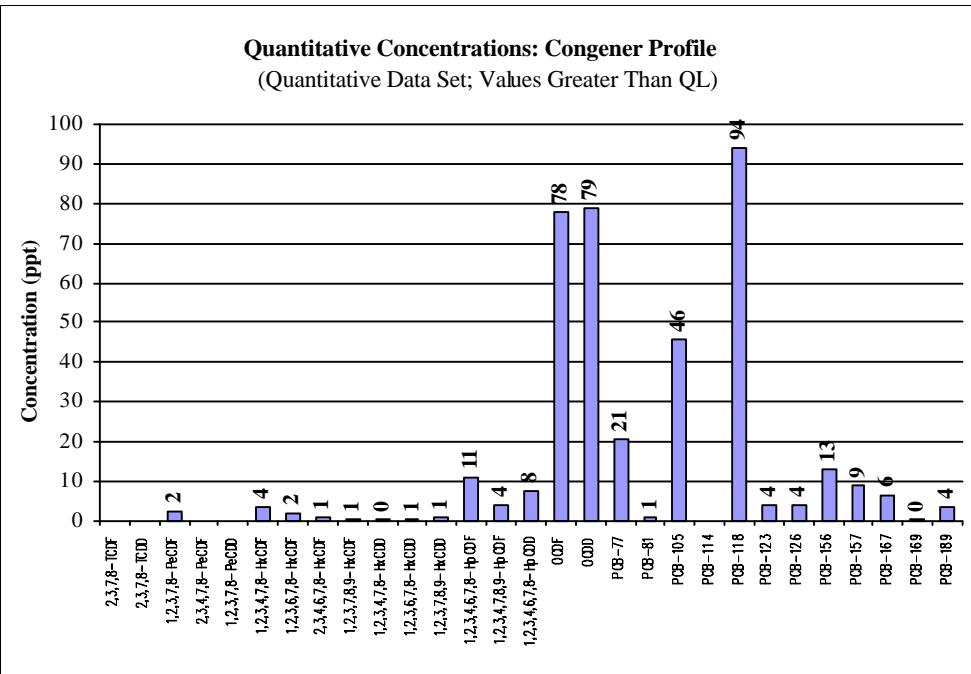
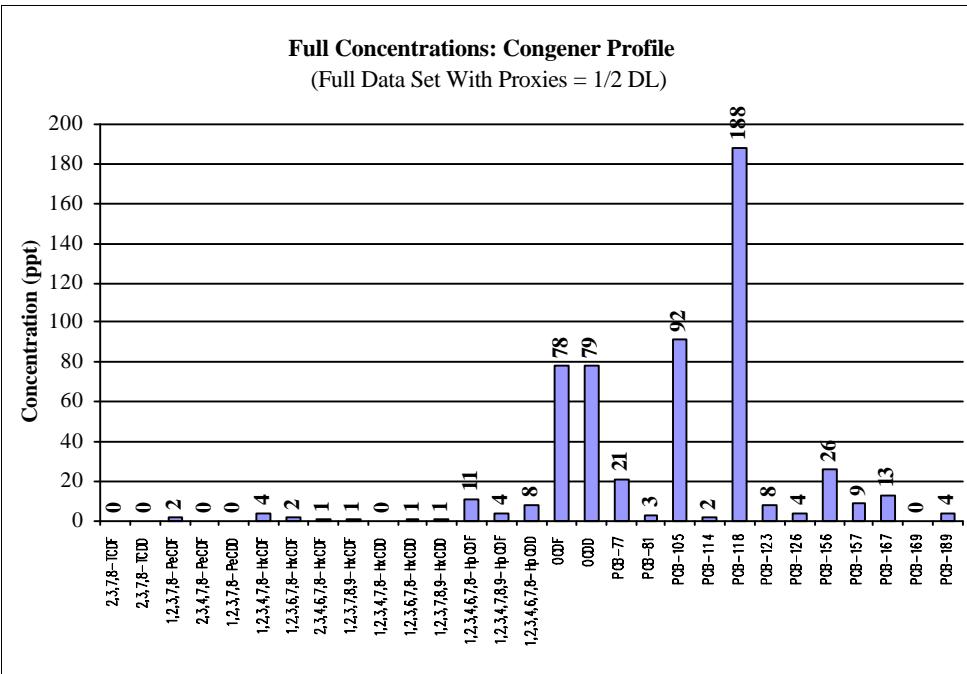
S35



These results were used in congener pattern analysis.

Sample 991

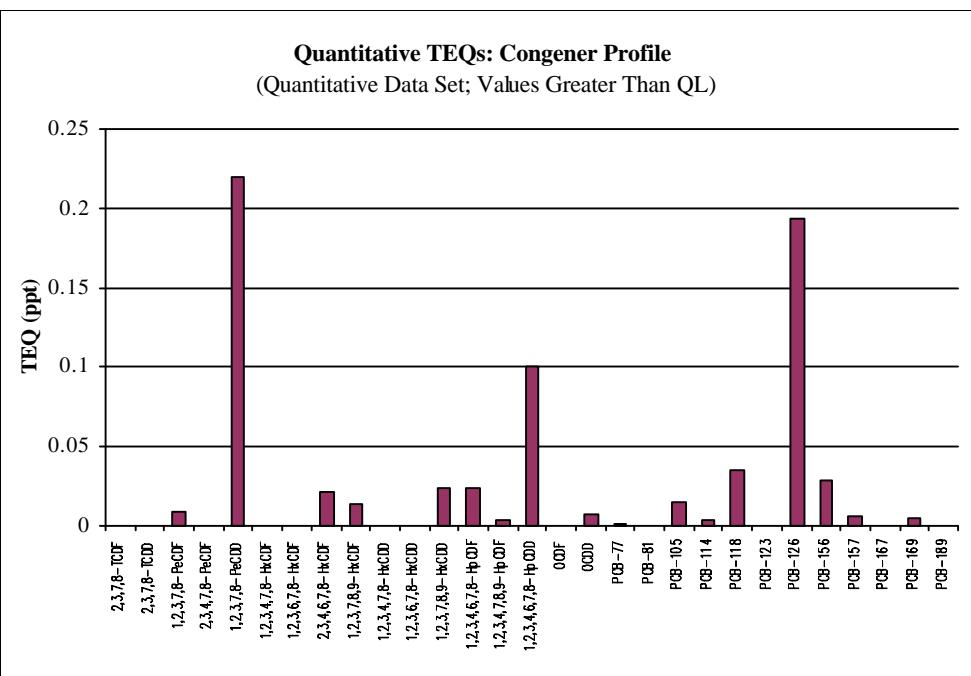
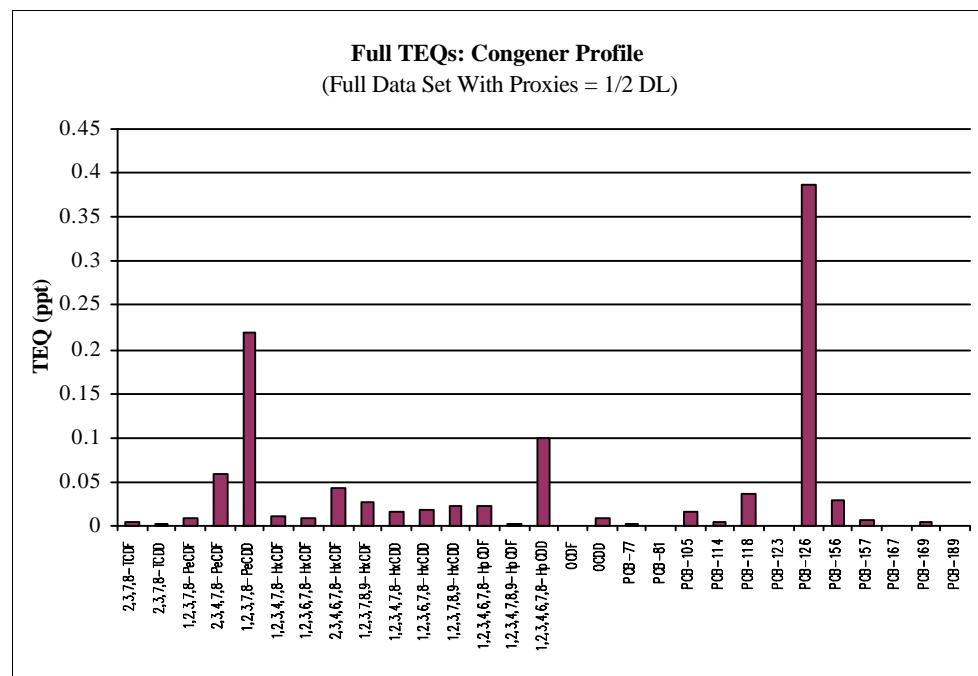
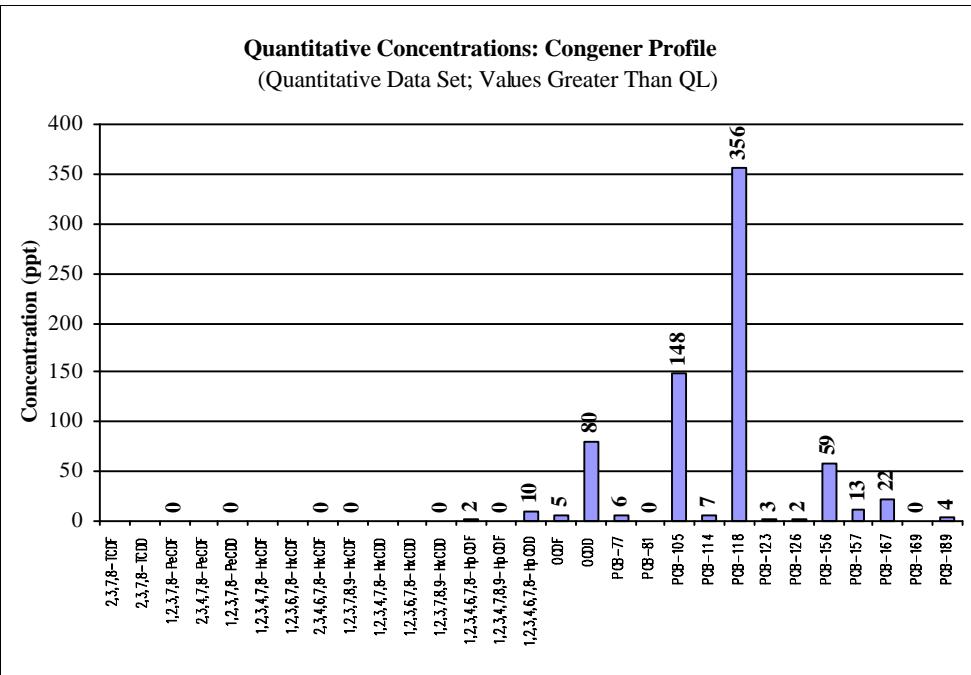
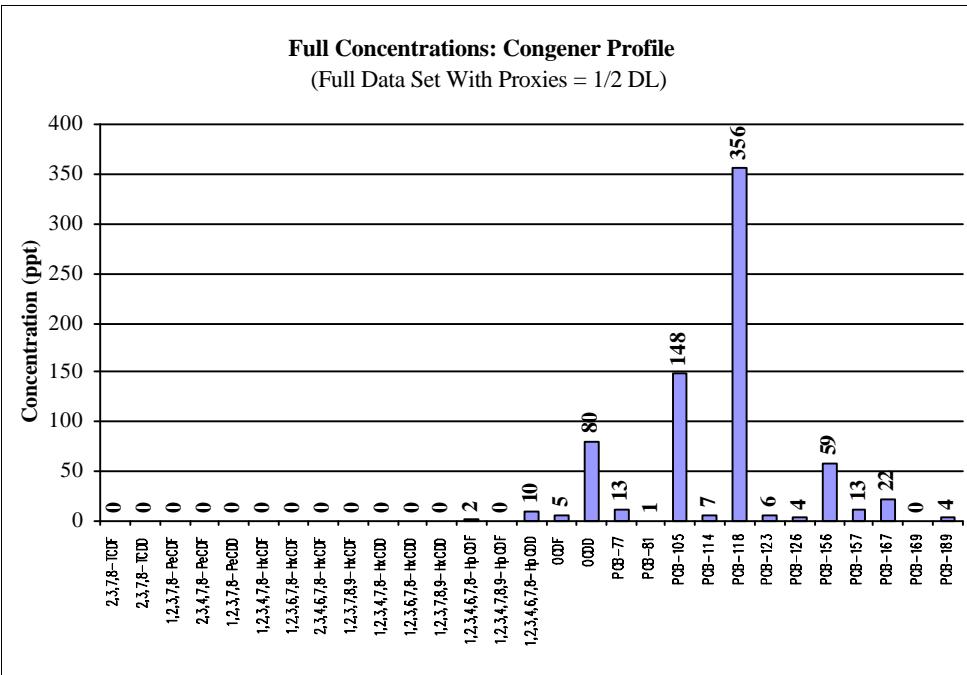
S36



These results were used in congener pattern analysis.

*Sample 102*

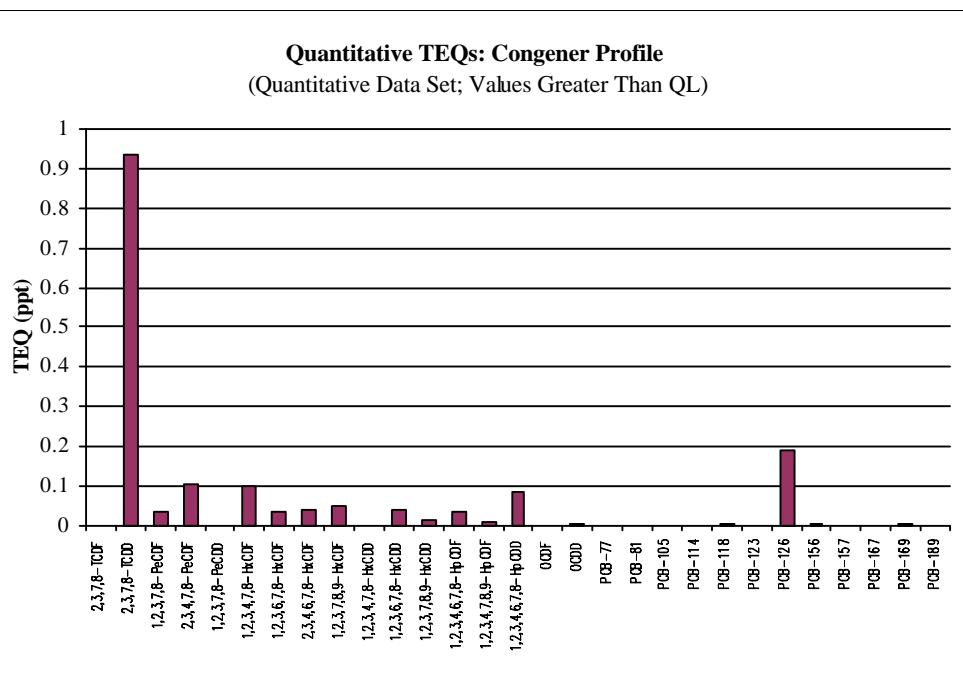
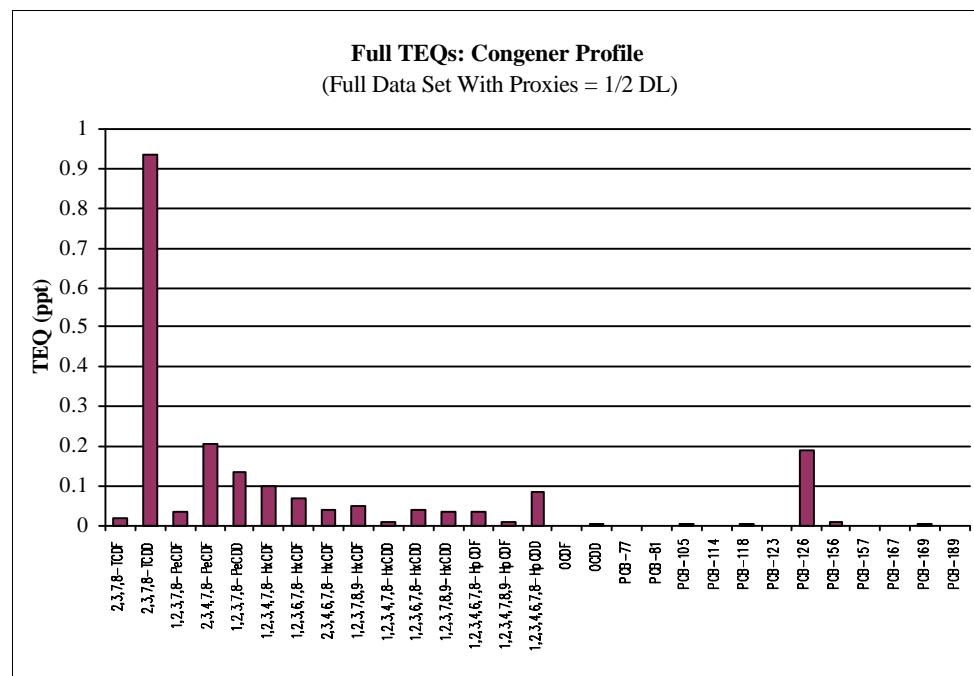
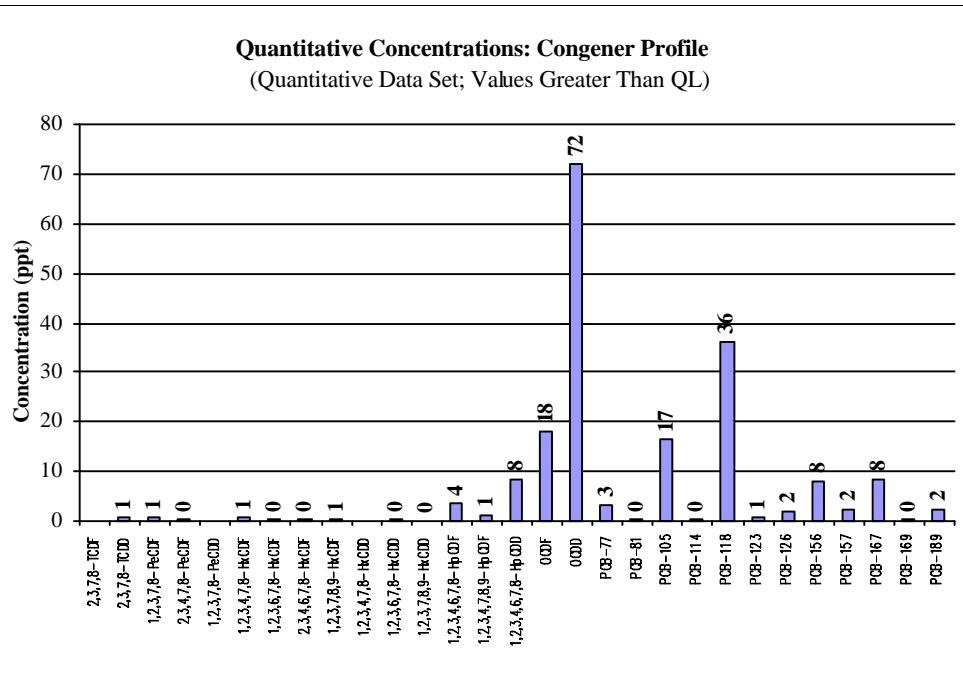
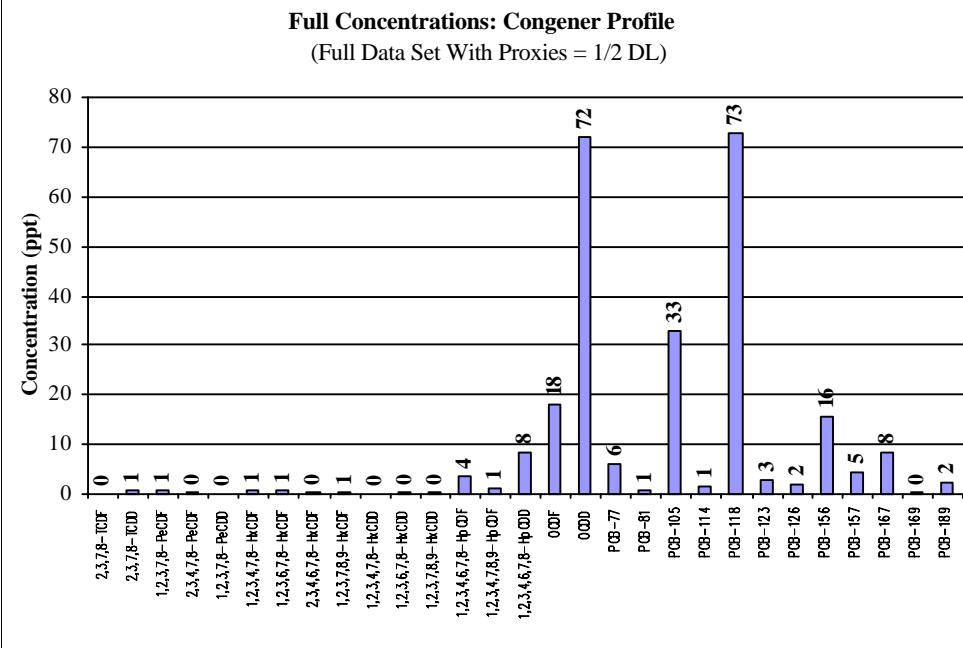
S4



These results were used in congener pattern analysis.

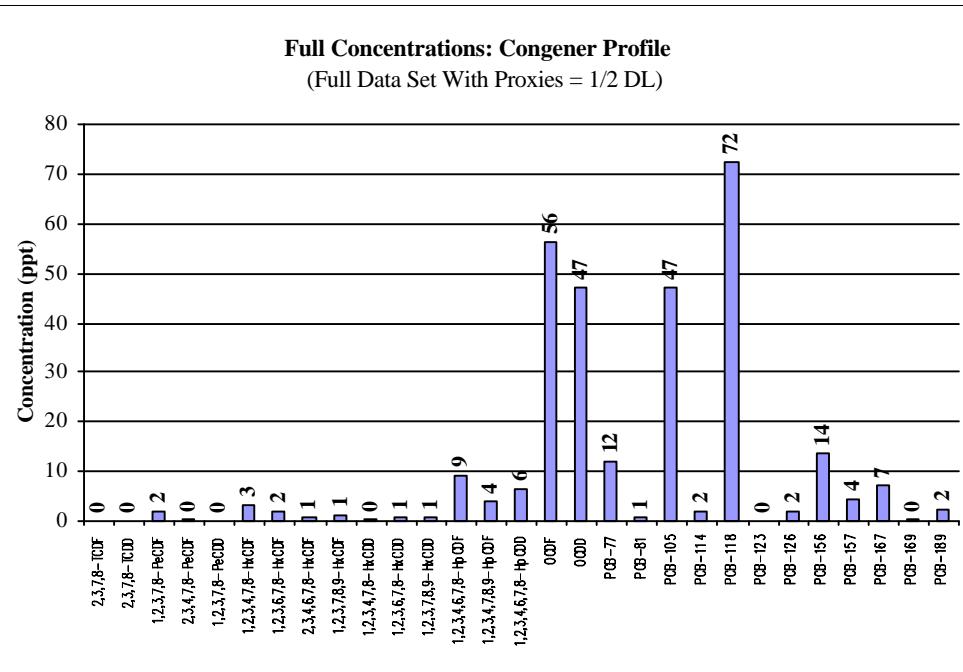
Sample 234

S5

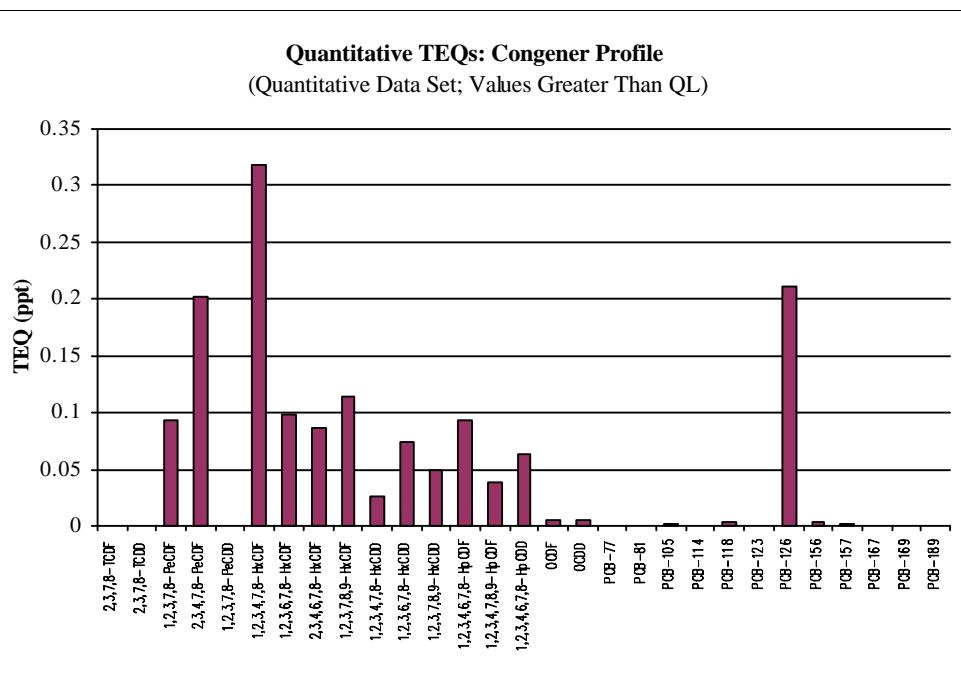
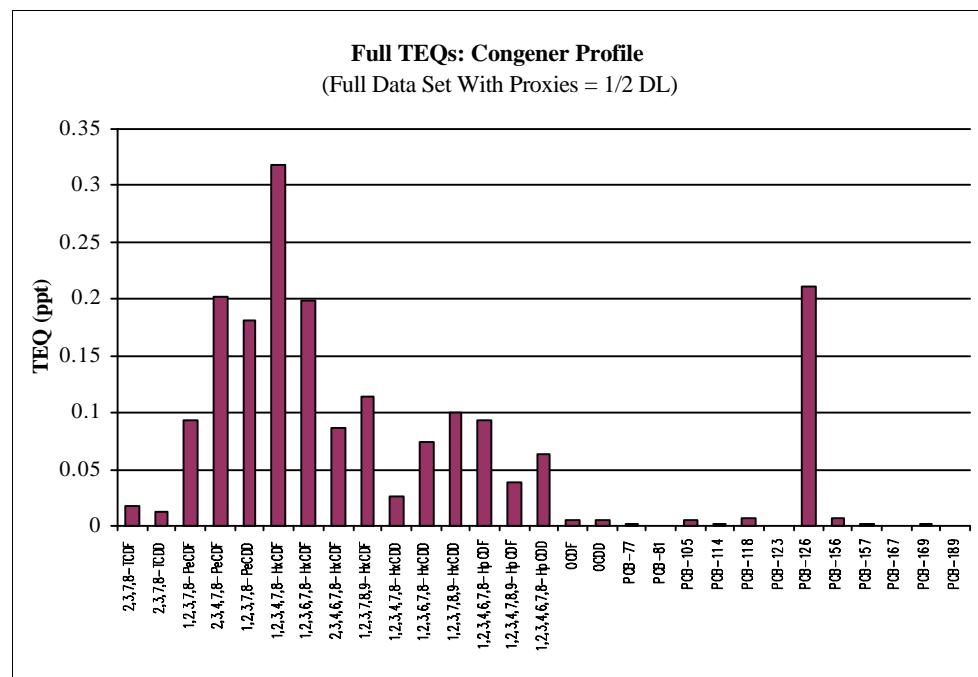
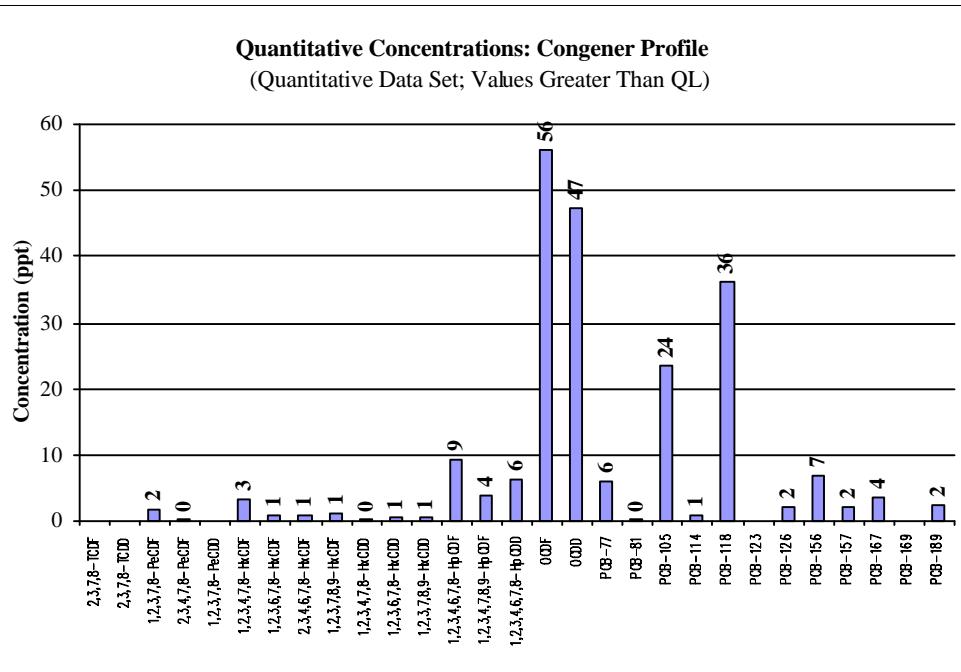


These results were used in congener pattern analysis.

### Sample 830



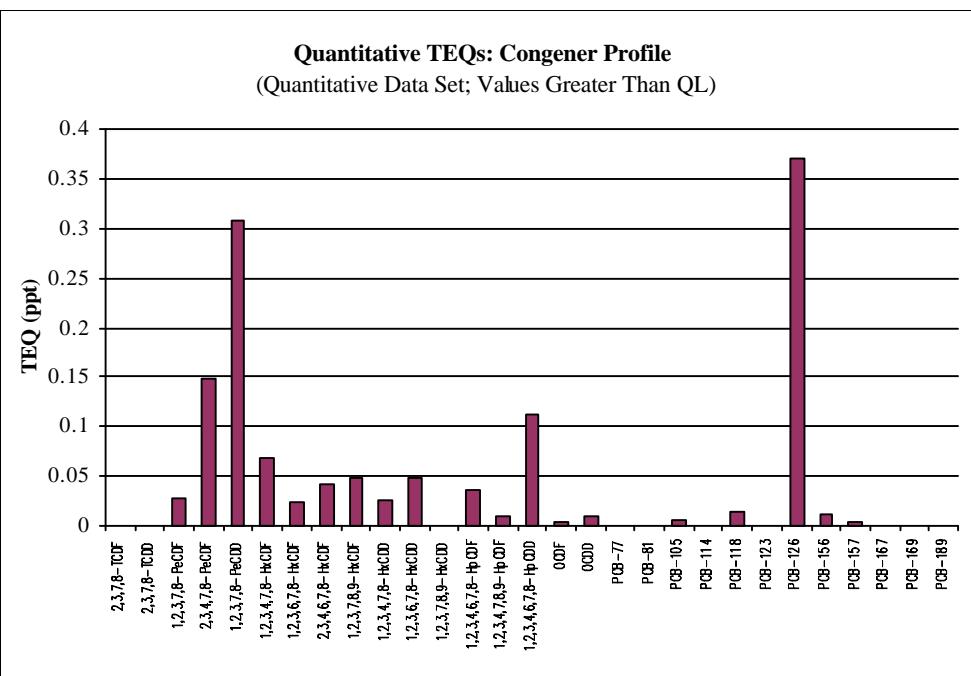
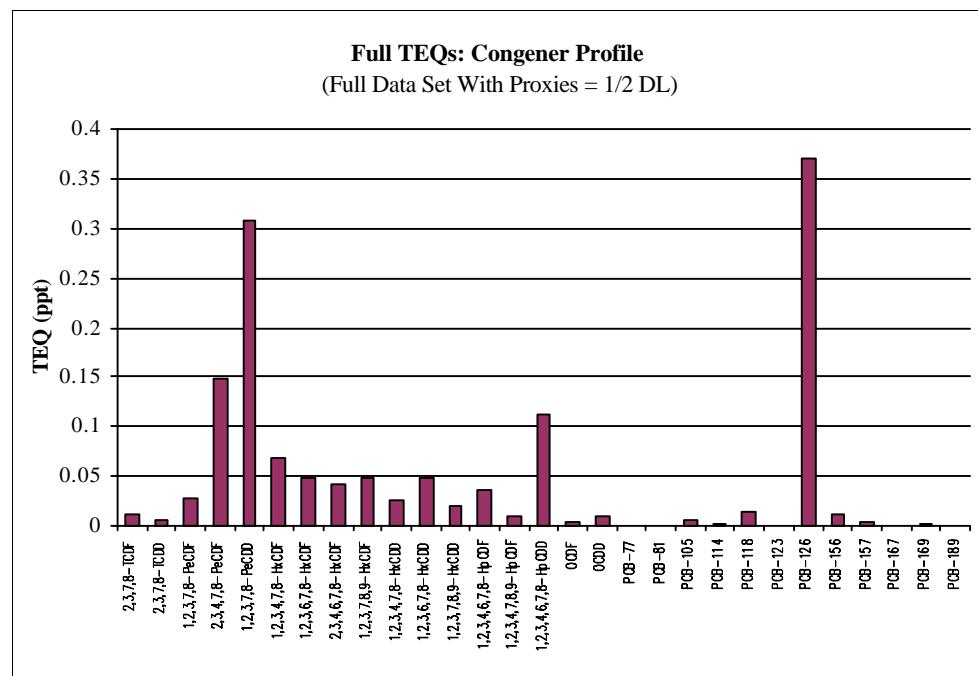
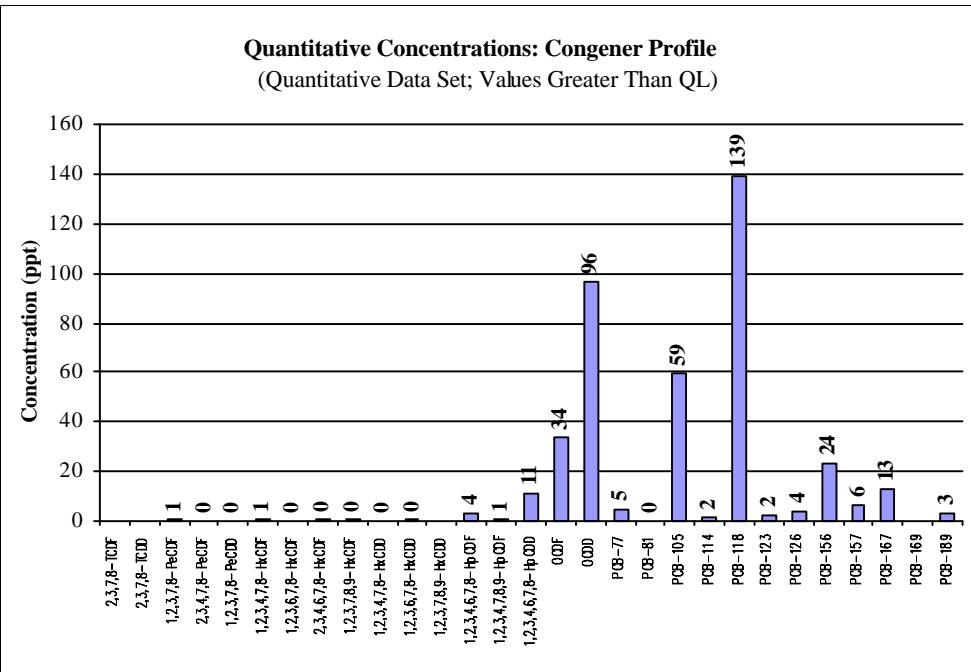
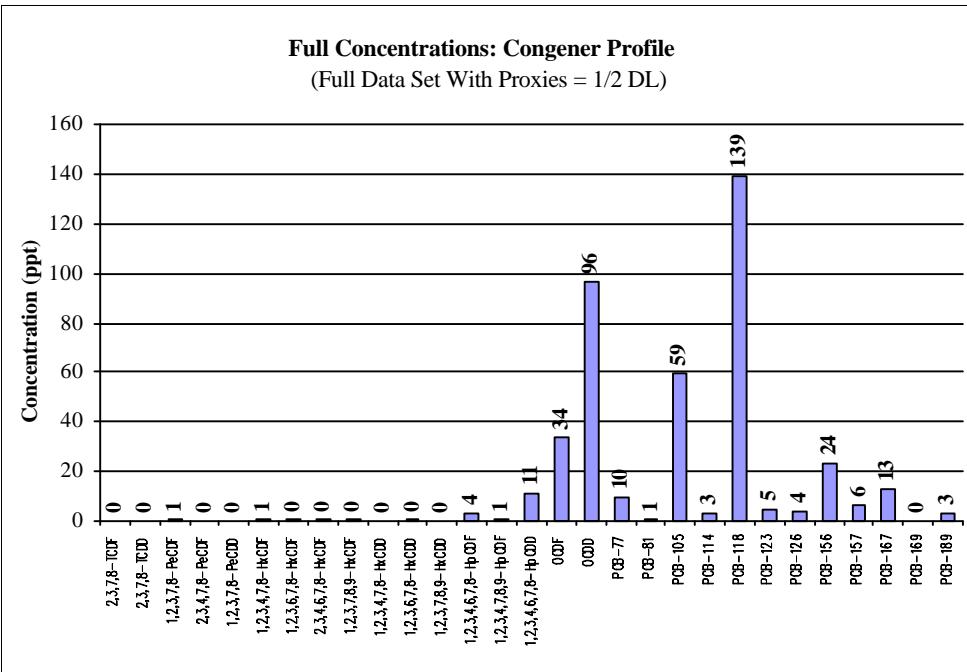
### S6



These results were used in congener pattern analysis.

Sample 788

S7



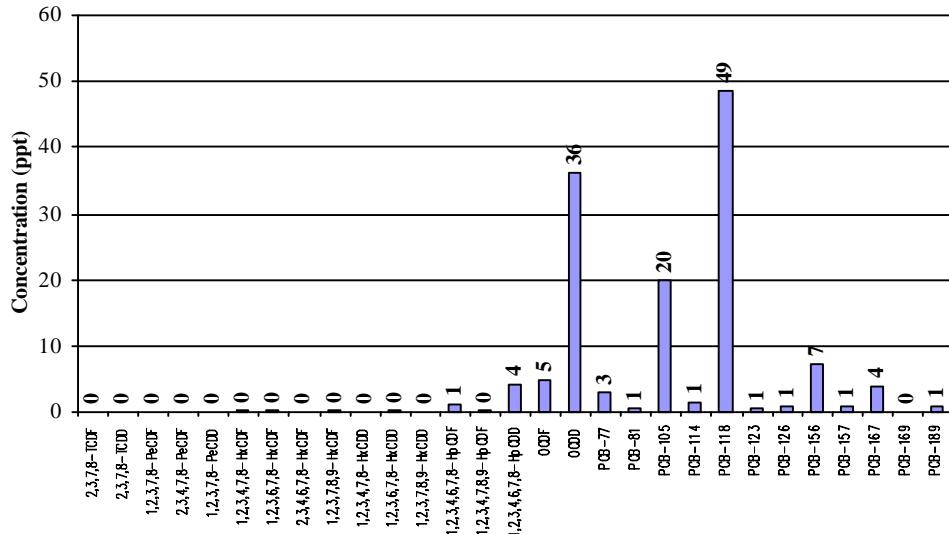
These results were used in congener pattern analysis.

Sample 589

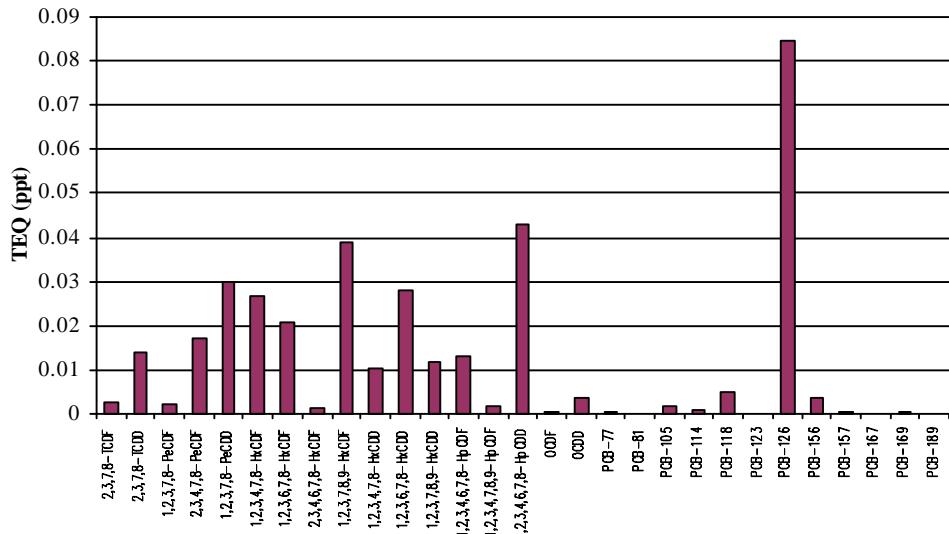
S8

## **Full Concentrations: Congener Profile**

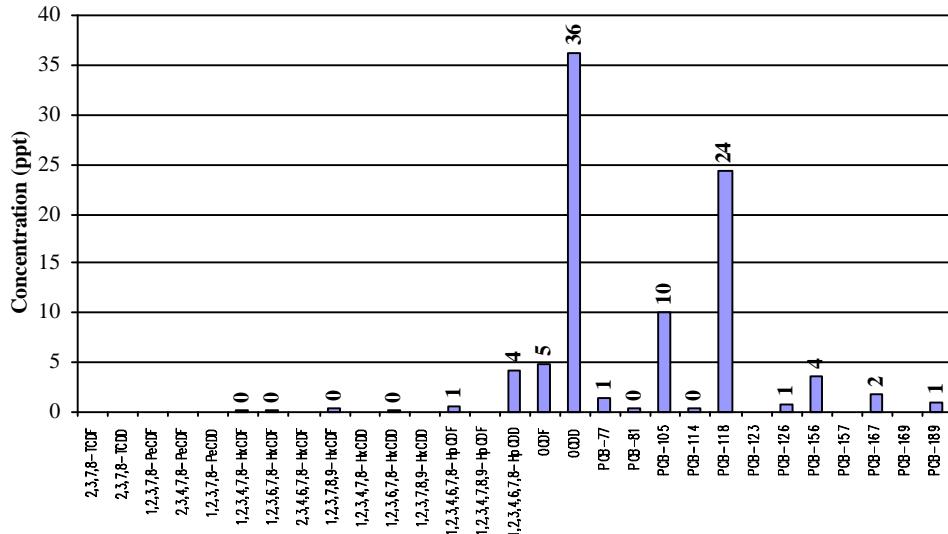
(Full Data Set With Proxies = 1/2 DL)



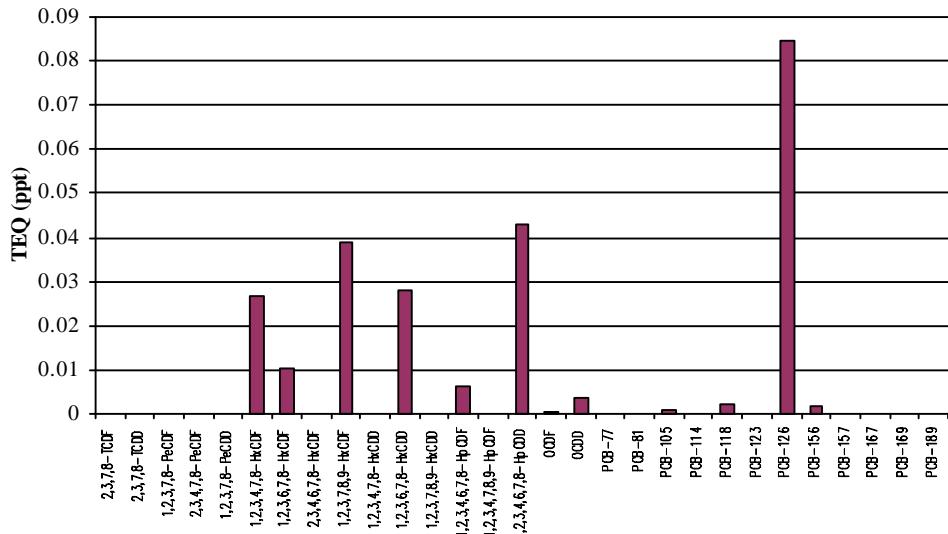
## **Full TEQs: Congener Profile**



## **Quantitative Concentrations: Congener Profile**



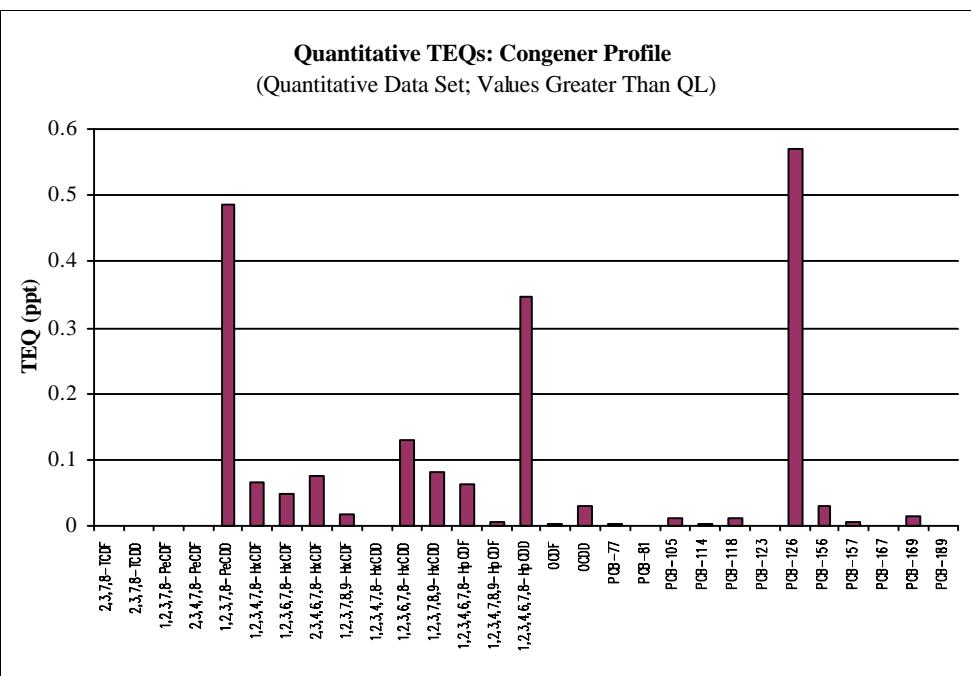
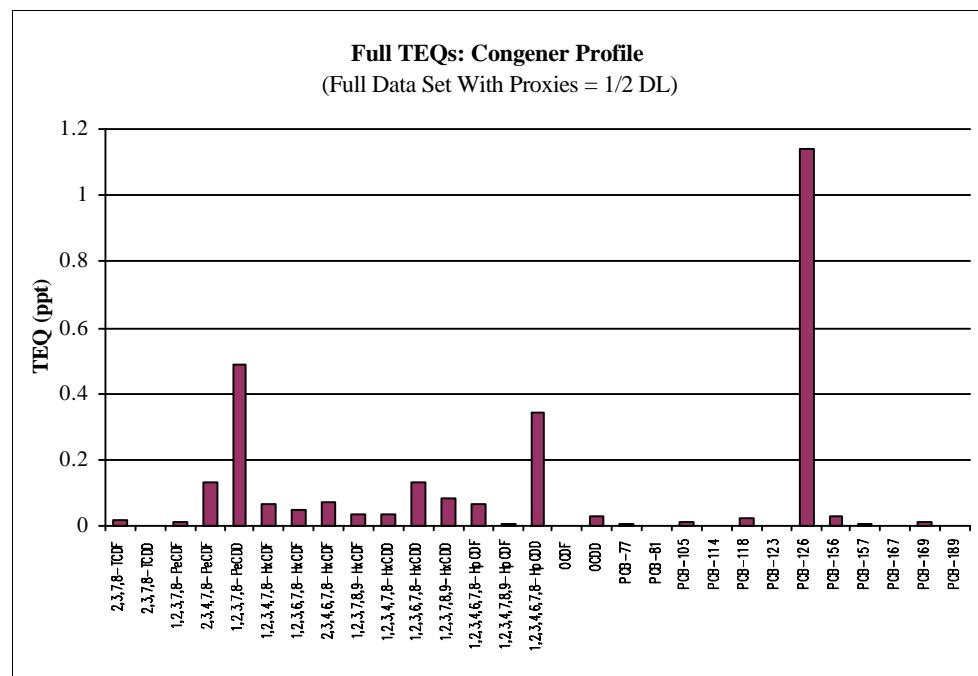
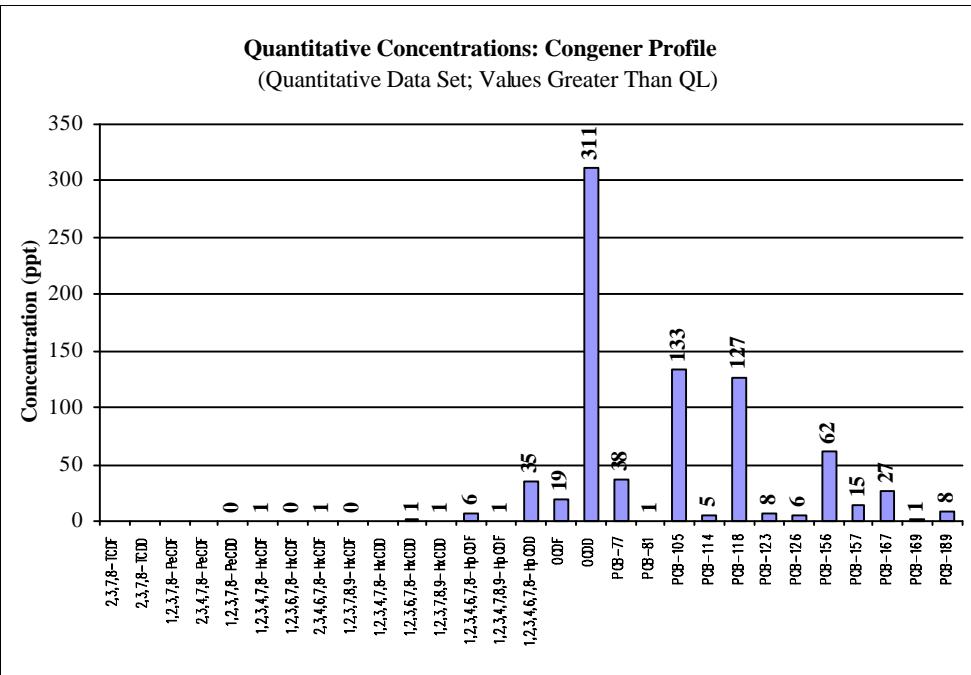
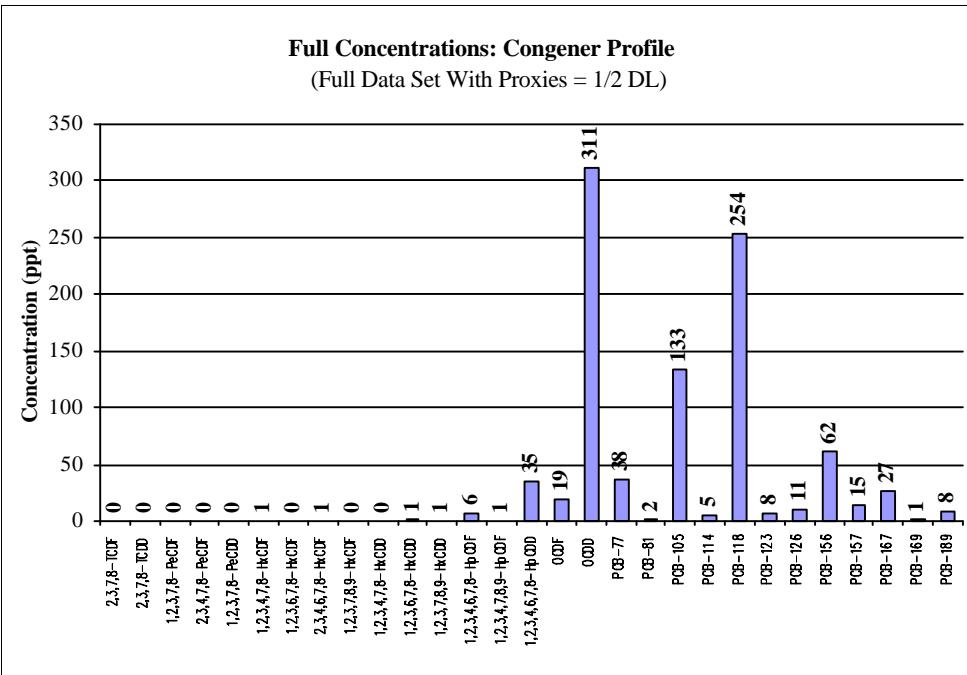
## **Quantitative TEQs: Congener Profile**



These results were used in congener pattern analysis.

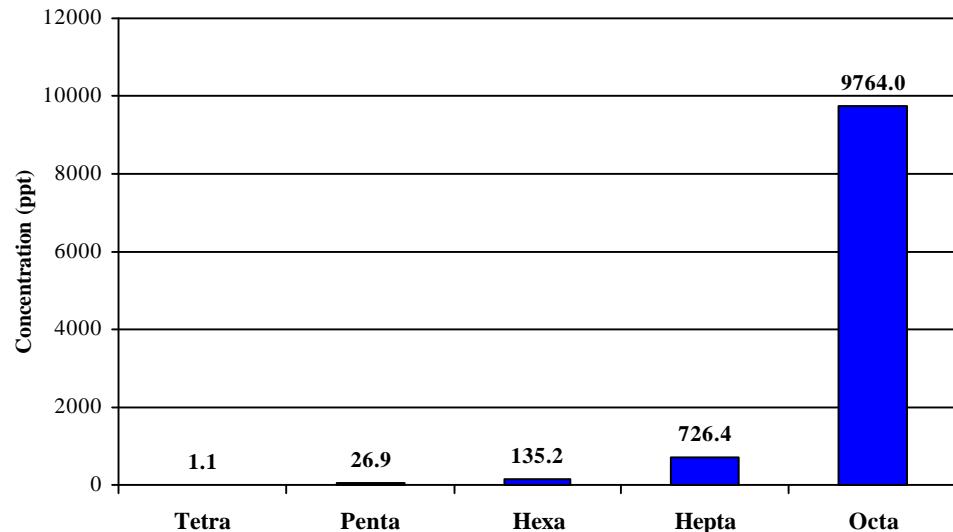
Sample 249

S9

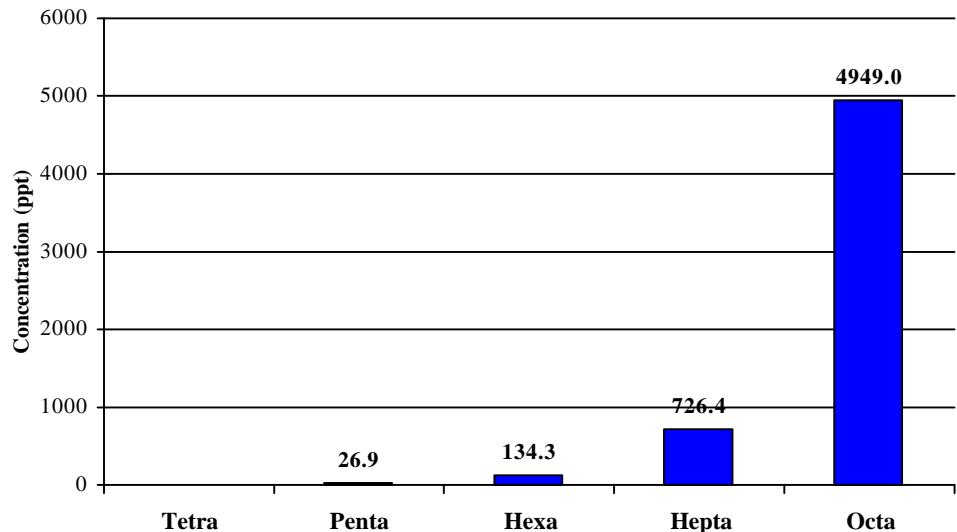


**Appendix B2. Homologue Profiles***Sample 463**SI*

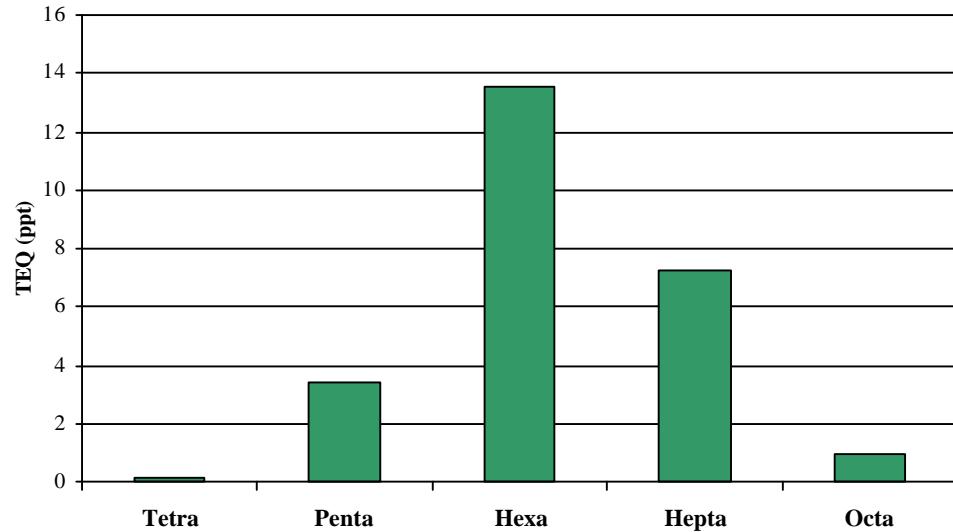
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



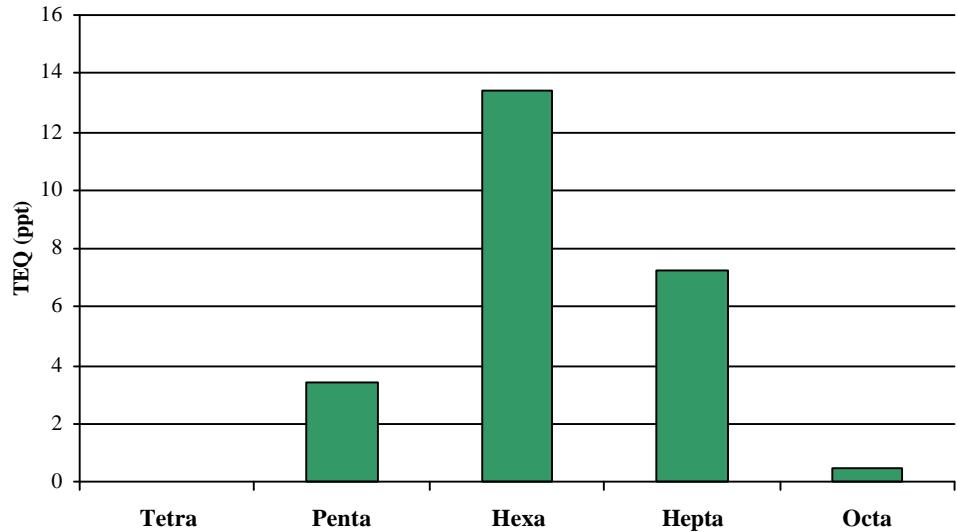
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)

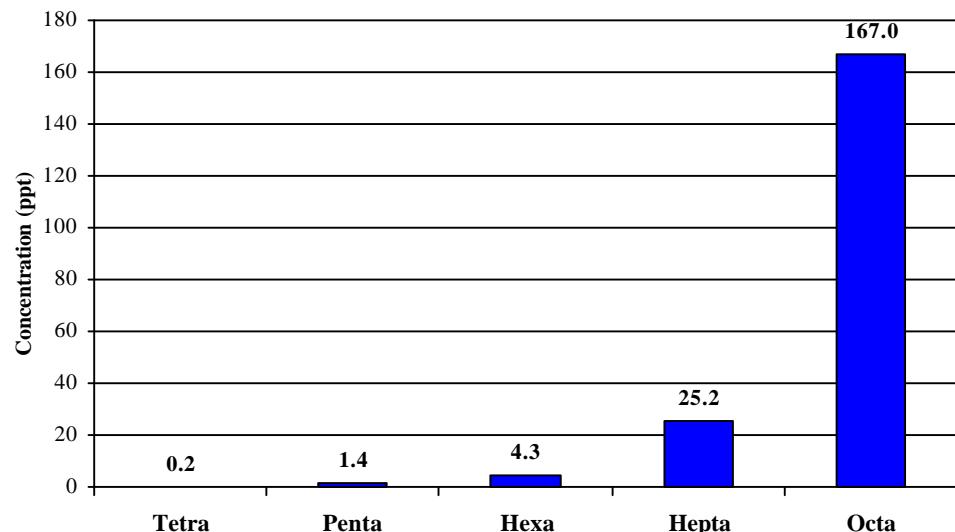


**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

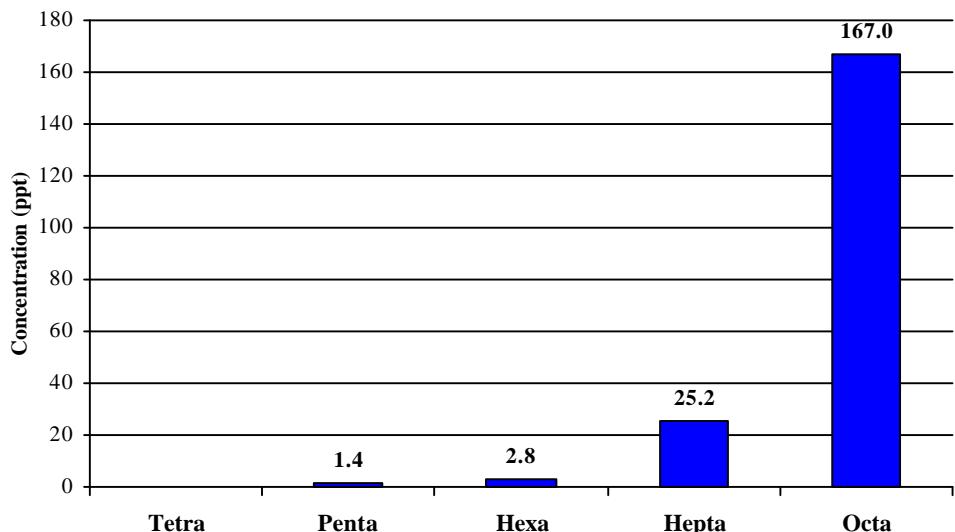


*Sample 318**S11***Full Concentrations: Homologue Profile**

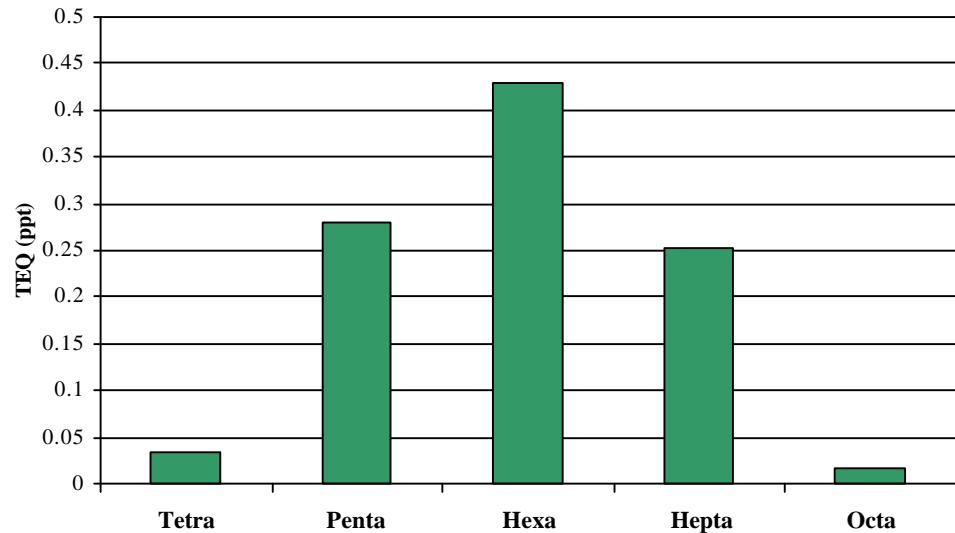
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

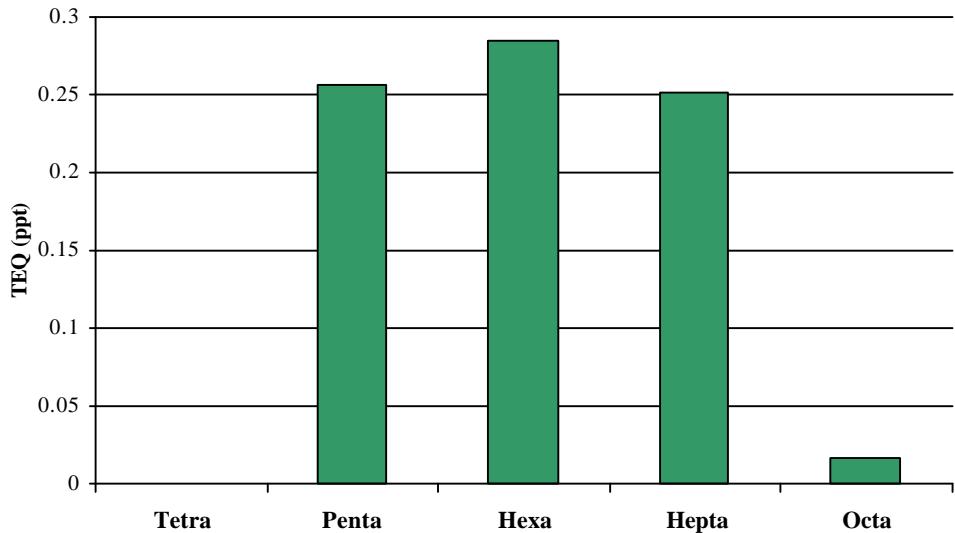
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

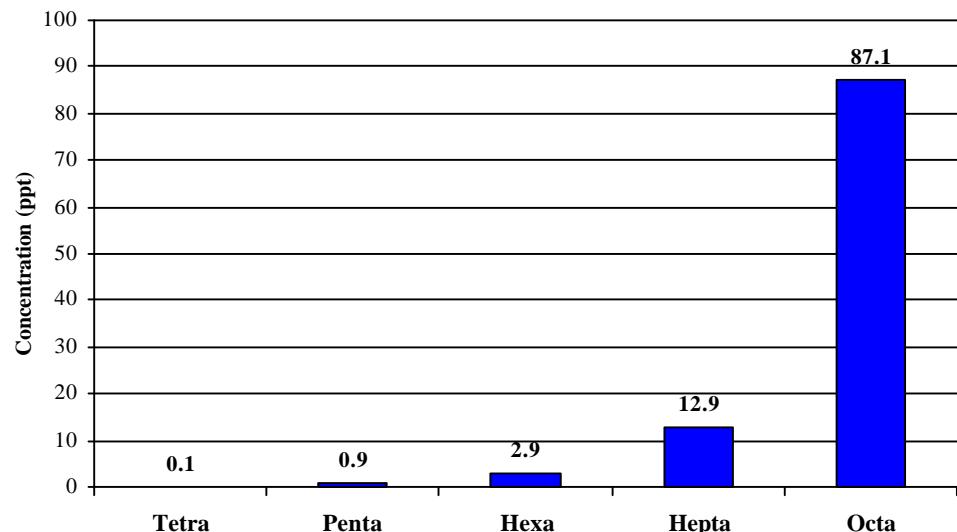
(Quantitative Data Set; Values Greater Than QL)



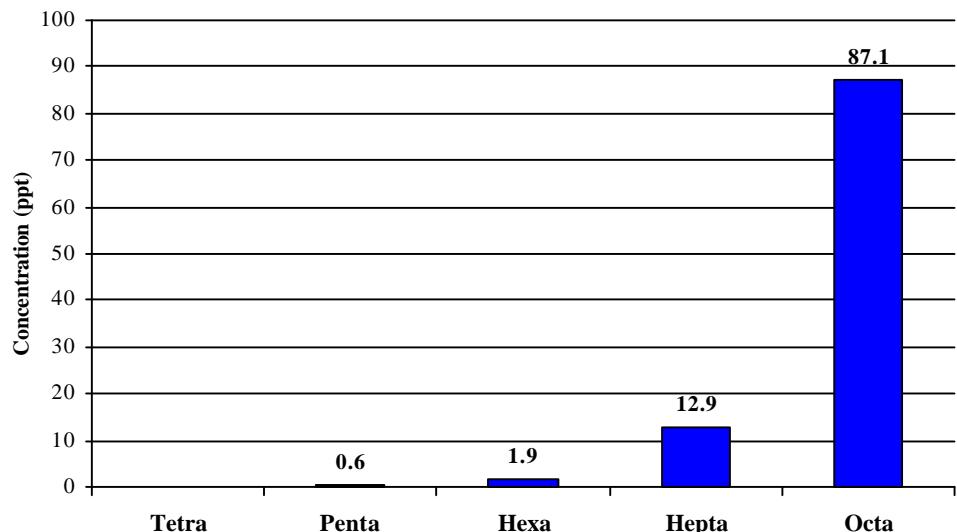
Sample 567

SI2

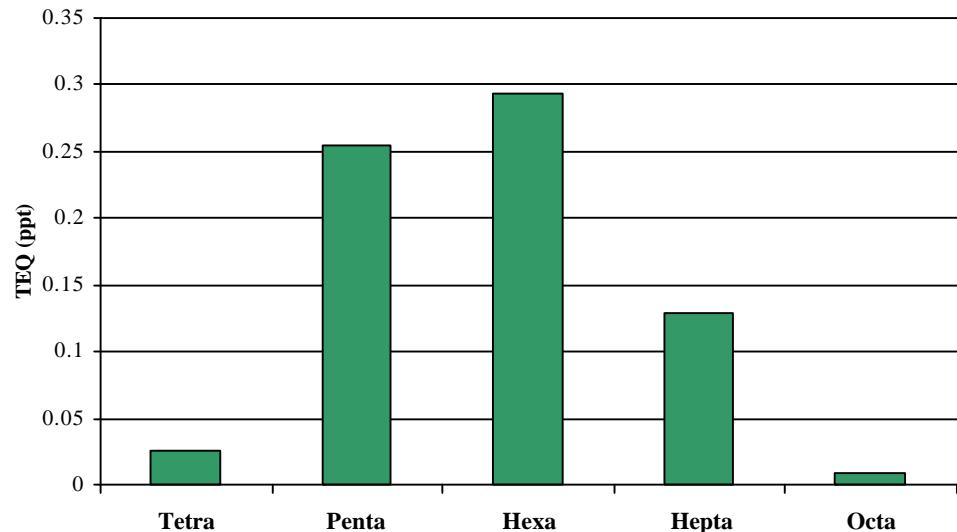
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



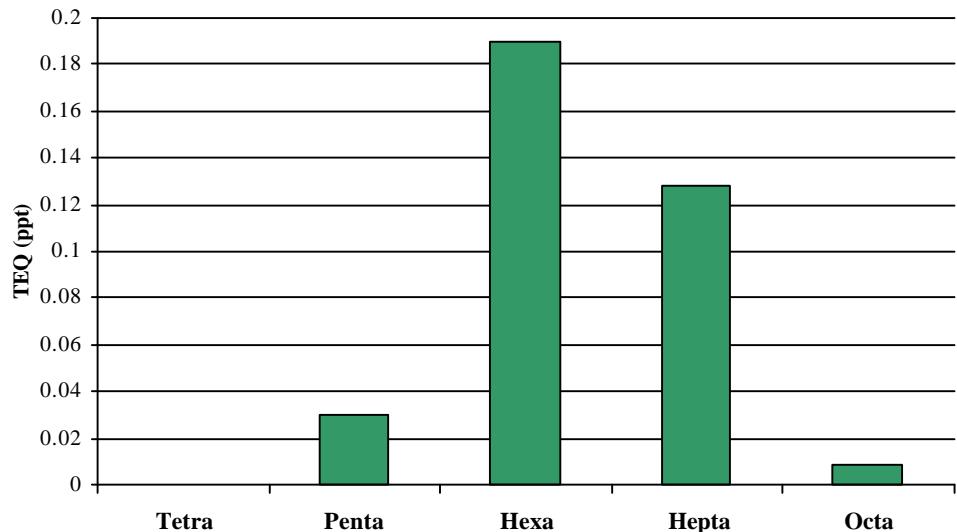
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



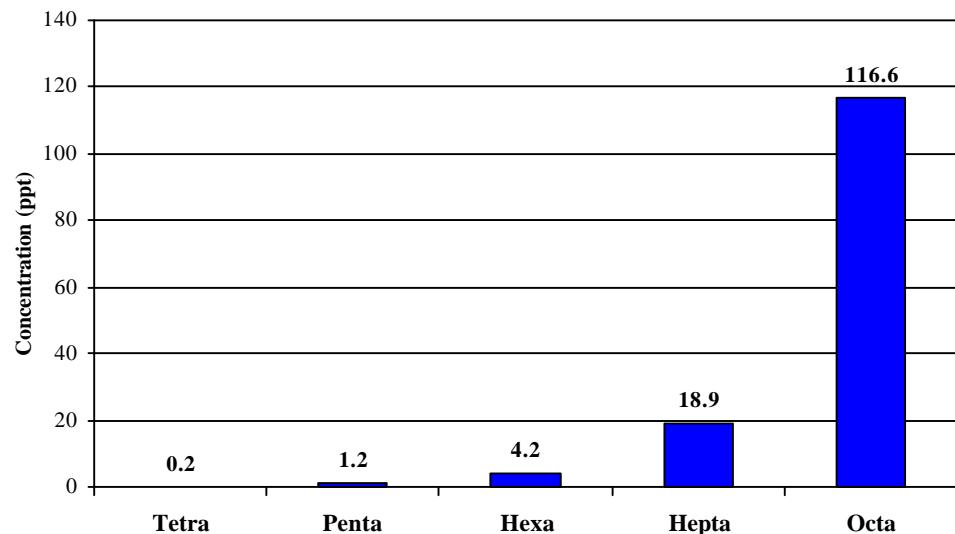
**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



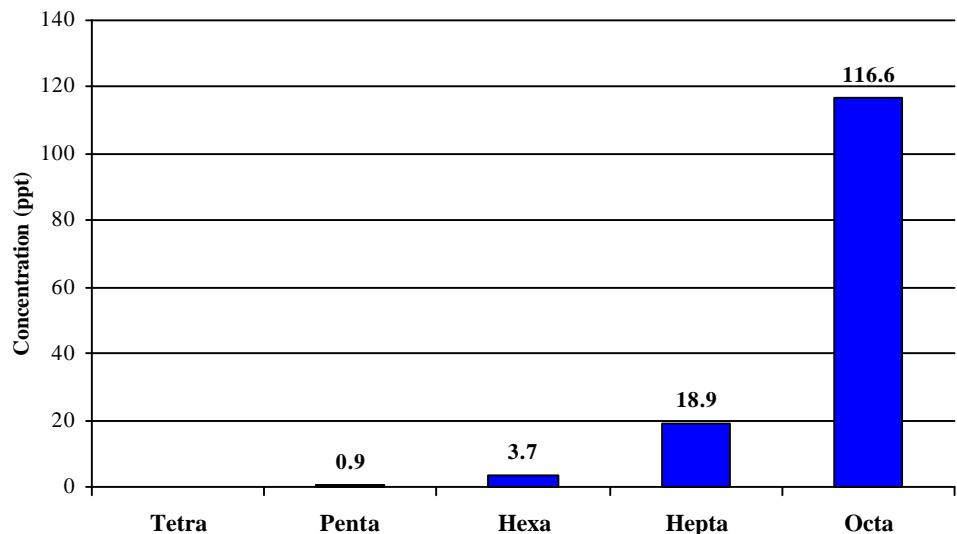
Sample 187

S19

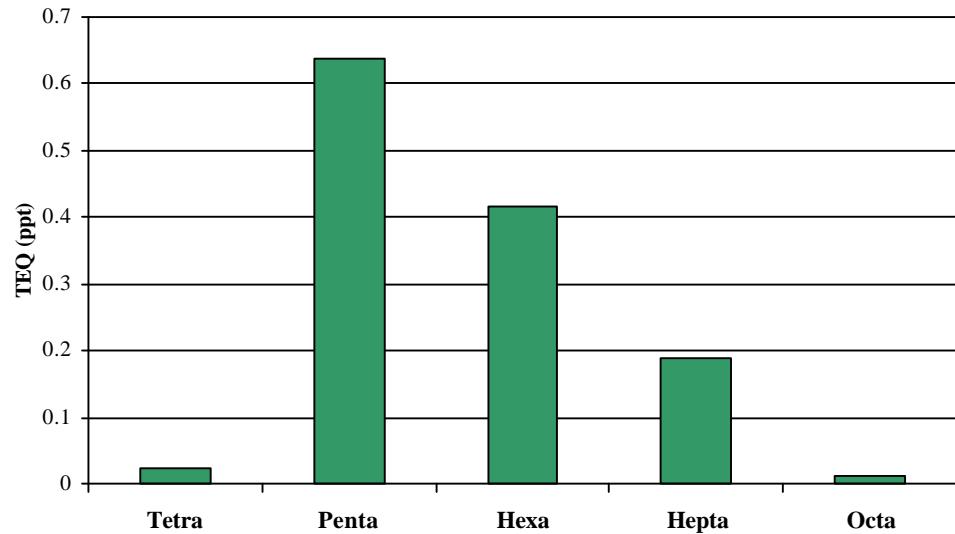
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



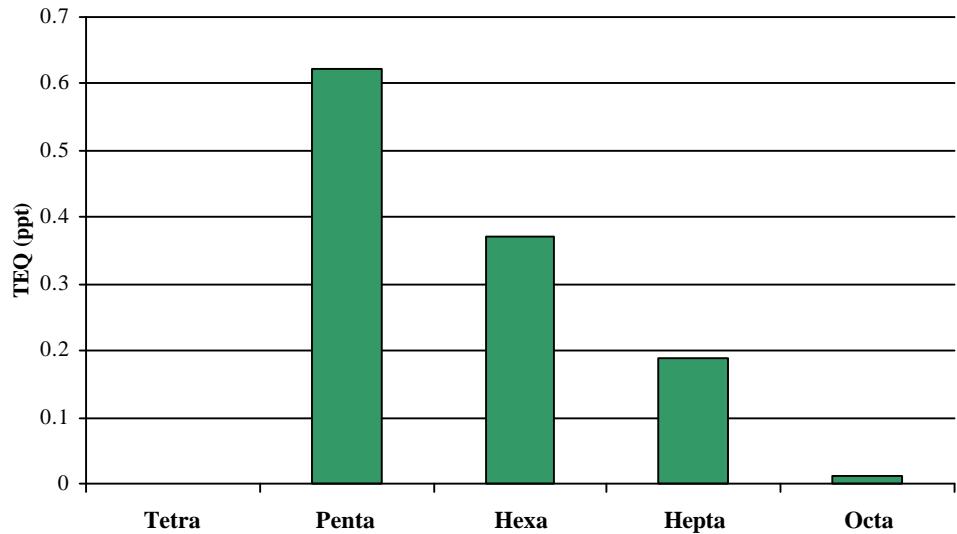
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



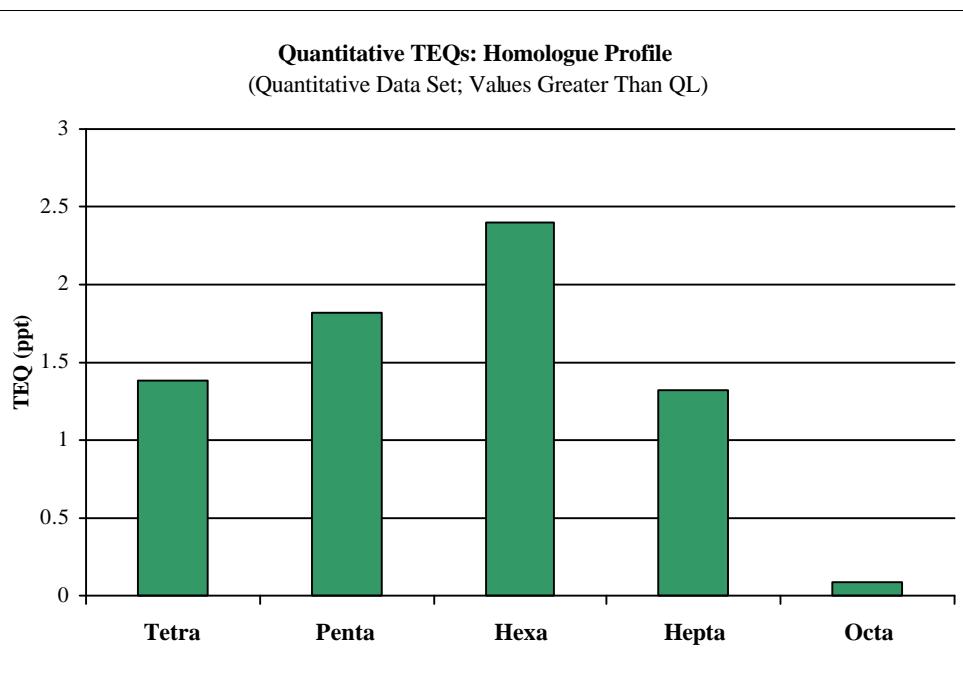
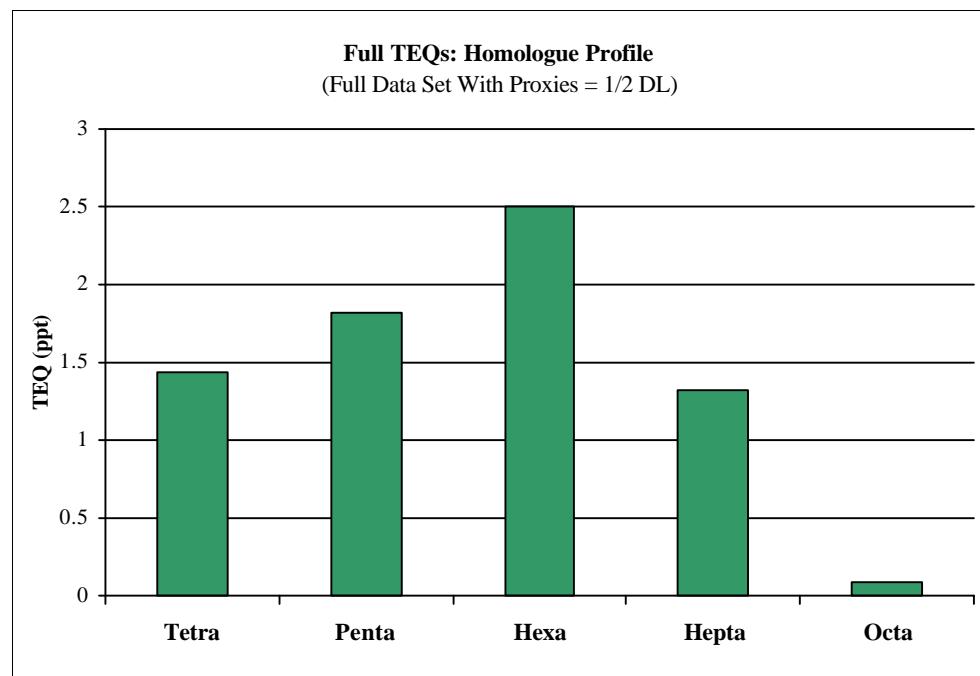
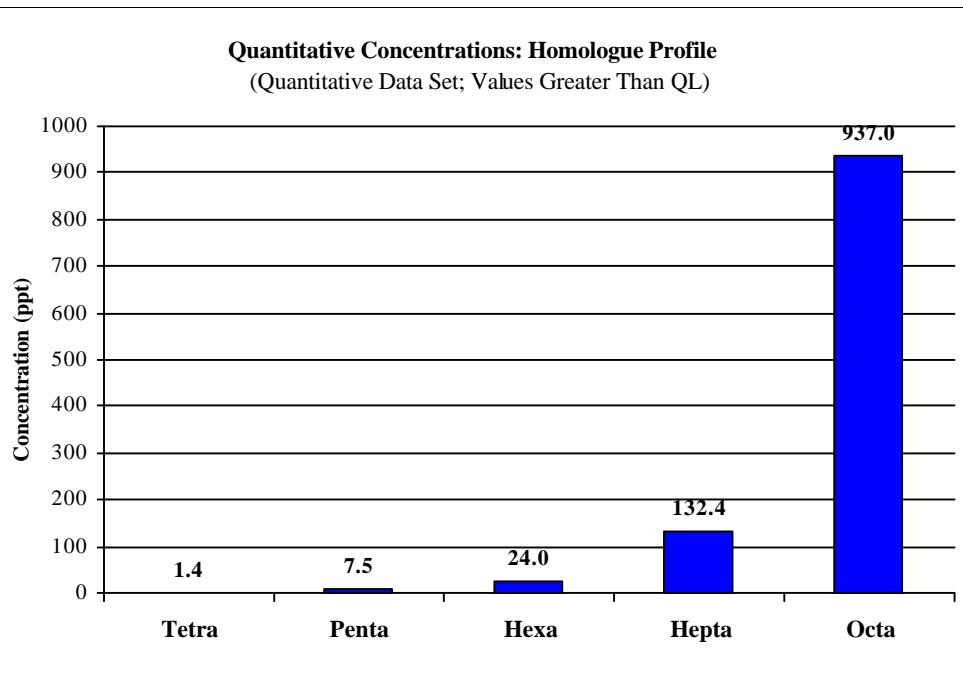
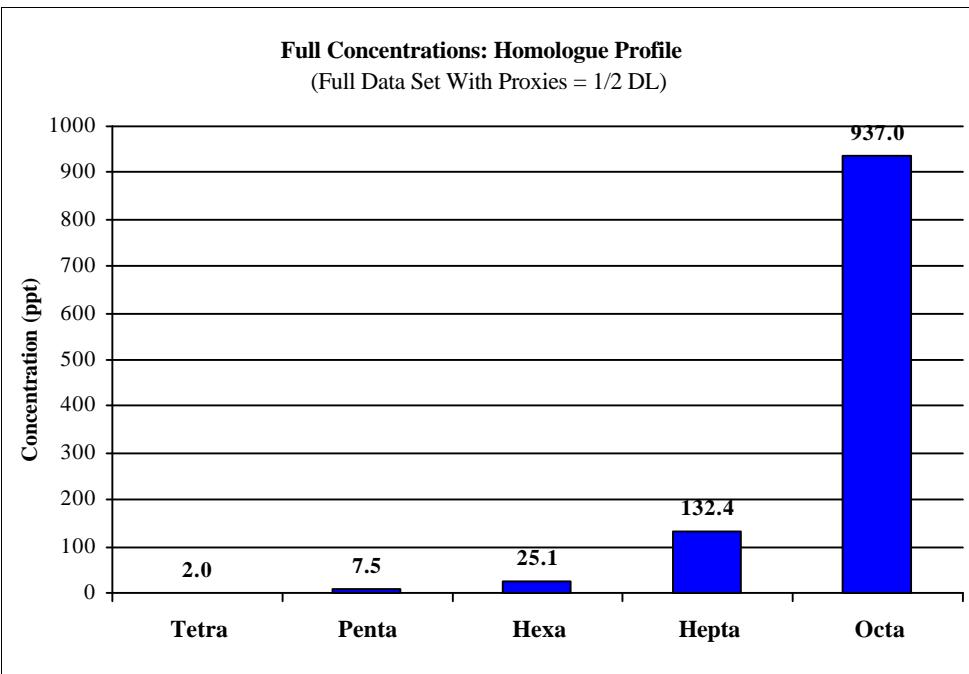
**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



## Appendix B2. Homologue Profiles

Sample 429

S2

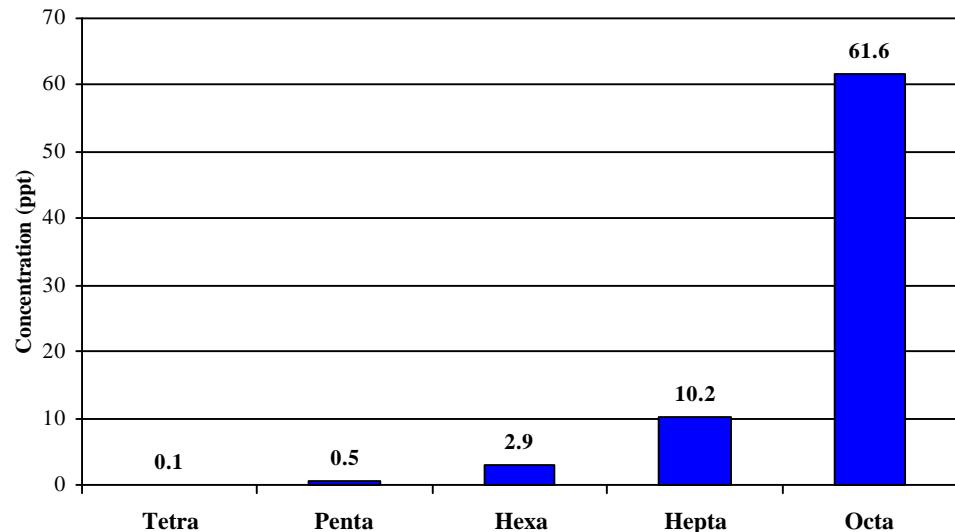


## Appendix B2. Homologue Profiles

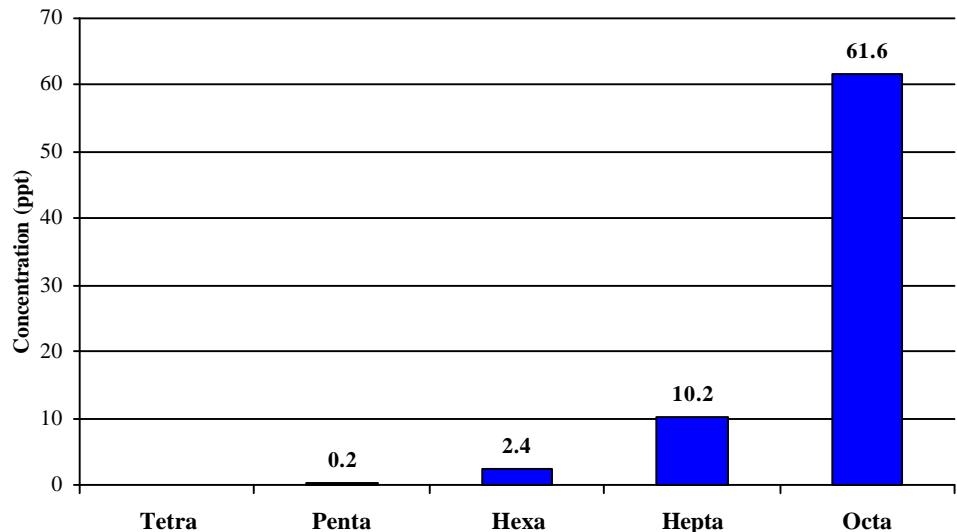
Sample 291

S20

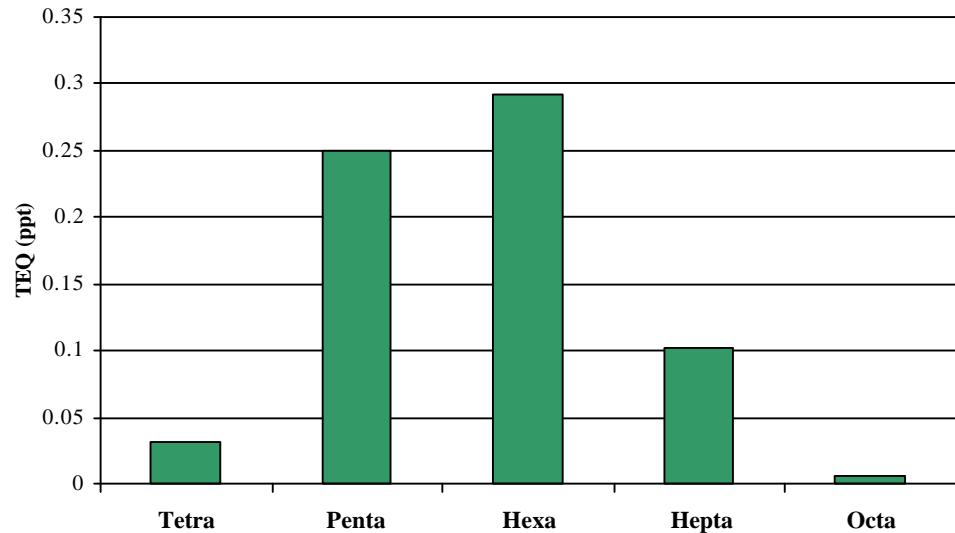
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



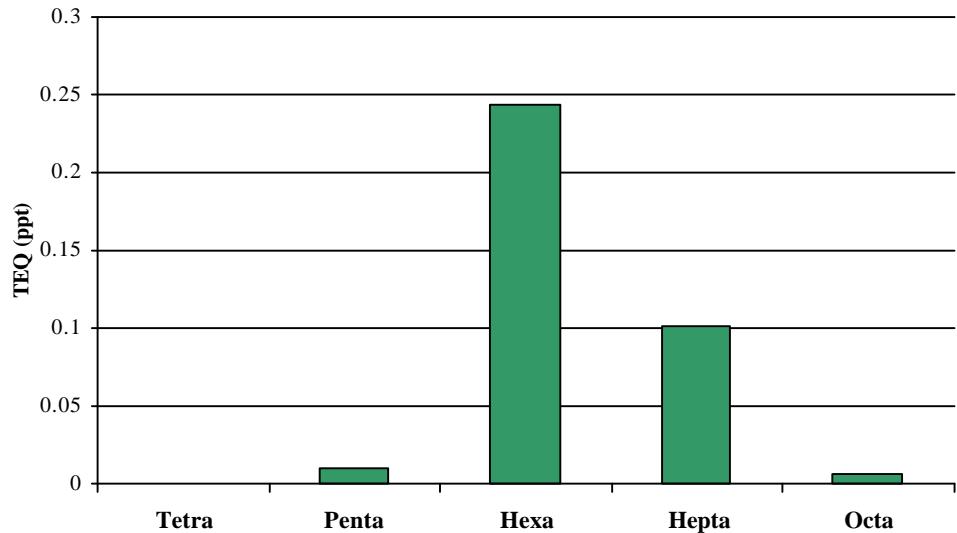
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

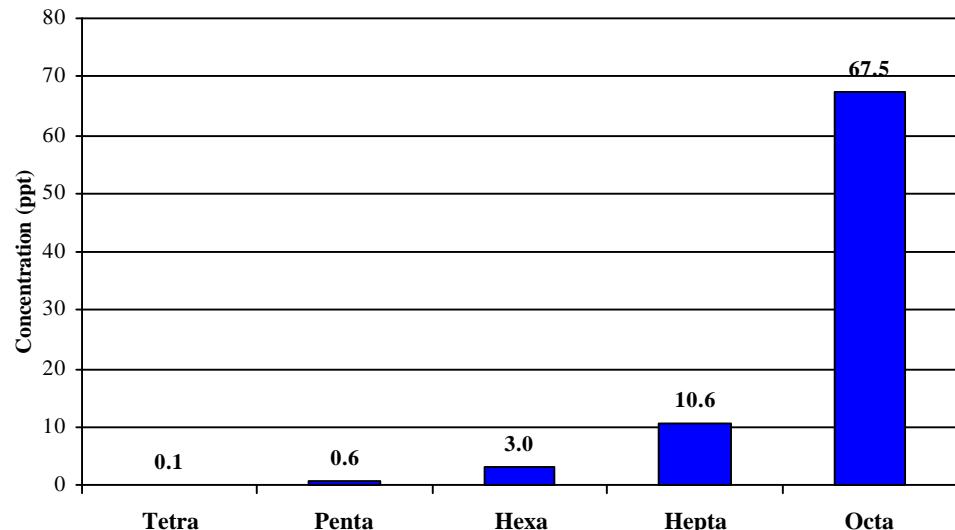


## Appendix B2. Homologue Profiles

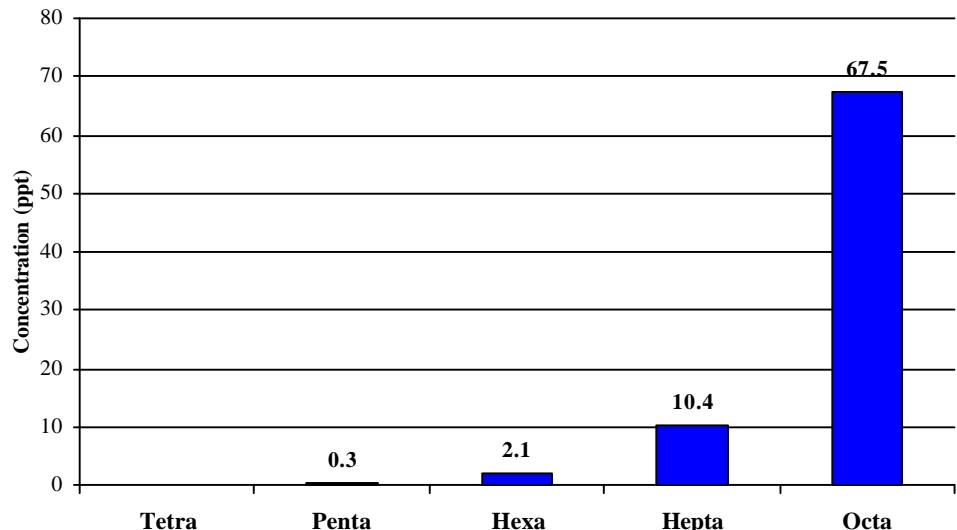
Sample 644

S22

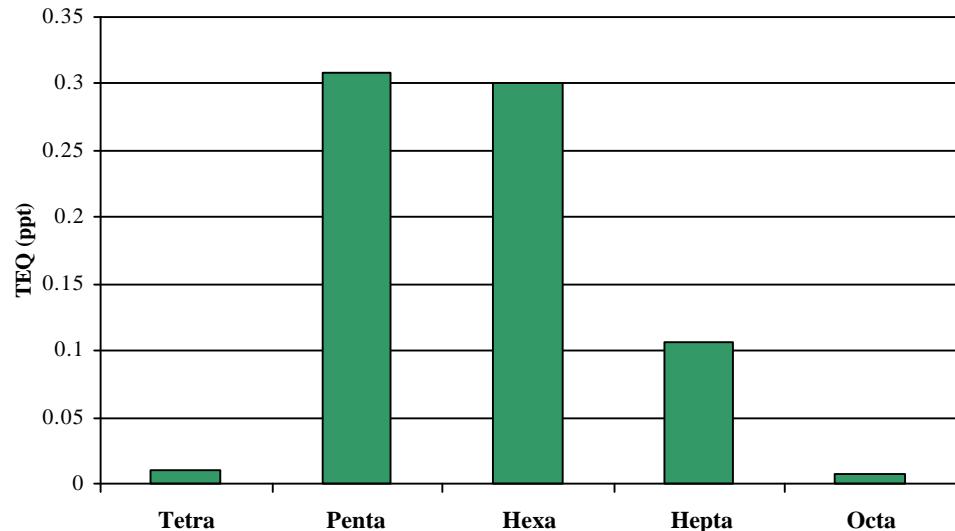
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



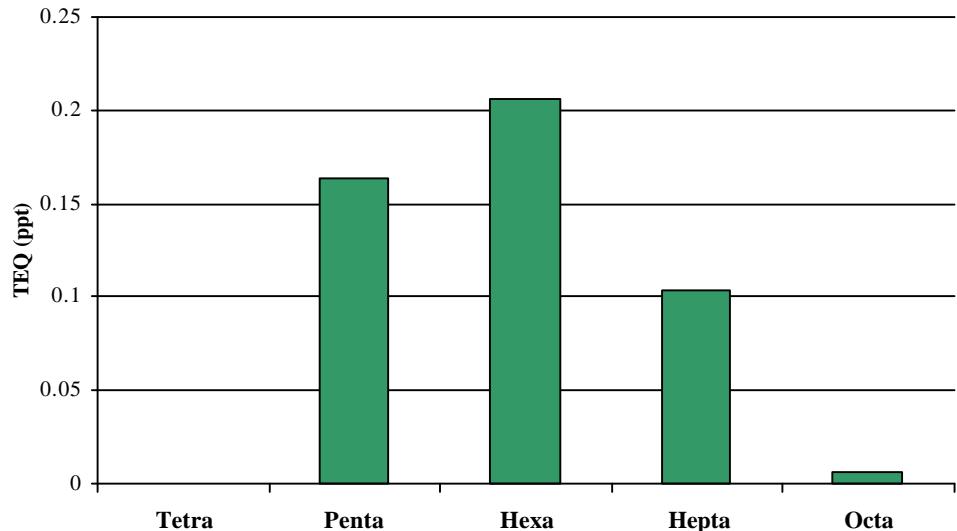
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

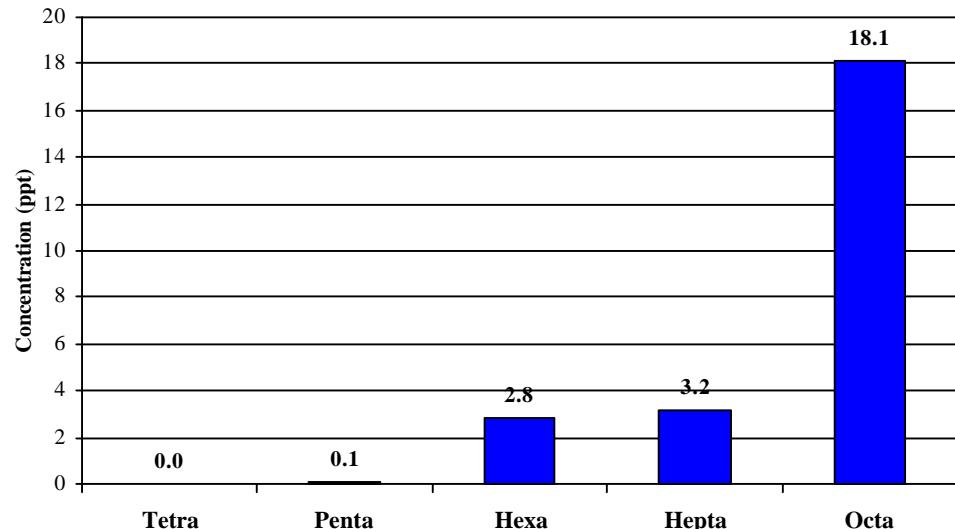


Sample 521

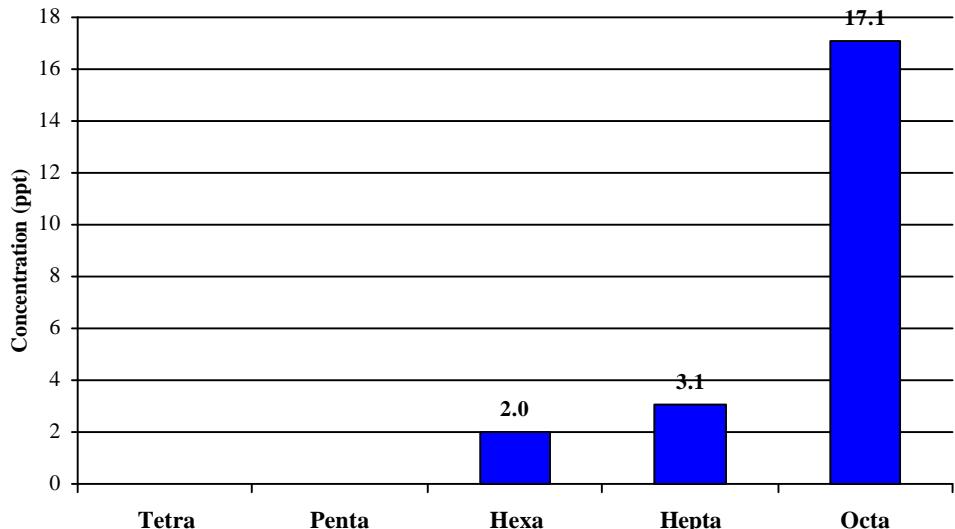
S23

**Full Concentrations: Homologue Profile**

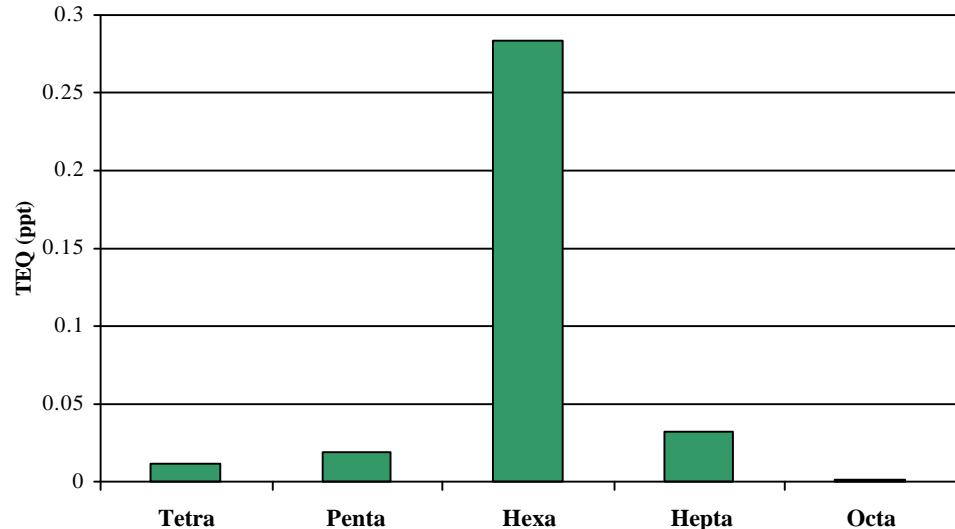
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

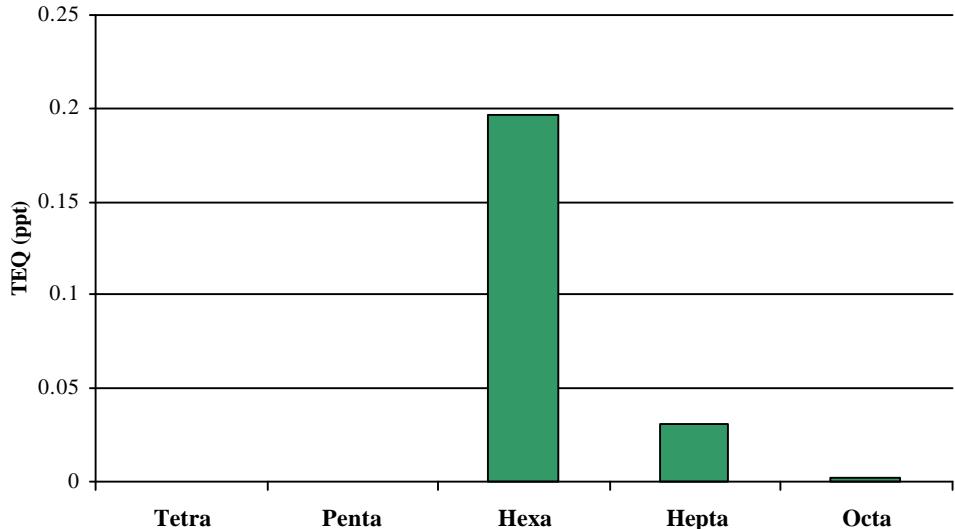
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)

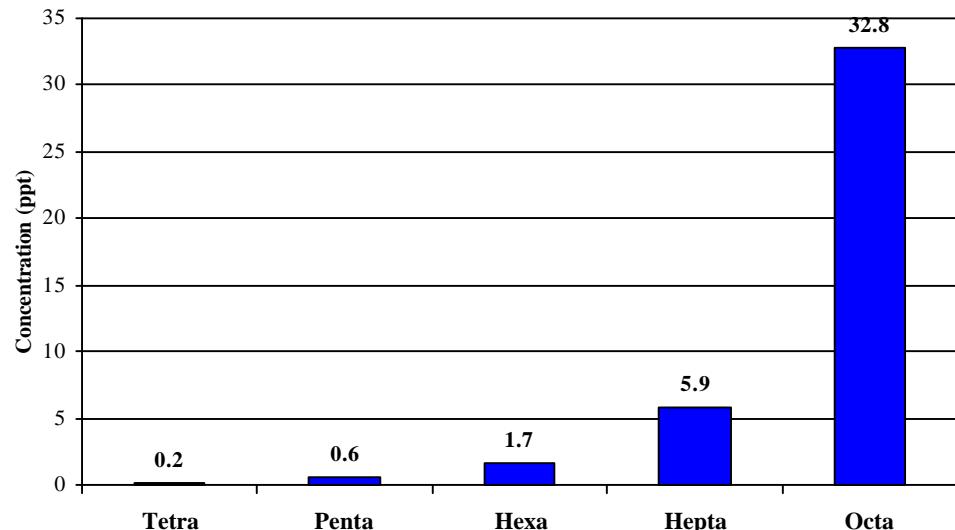


Sample 385

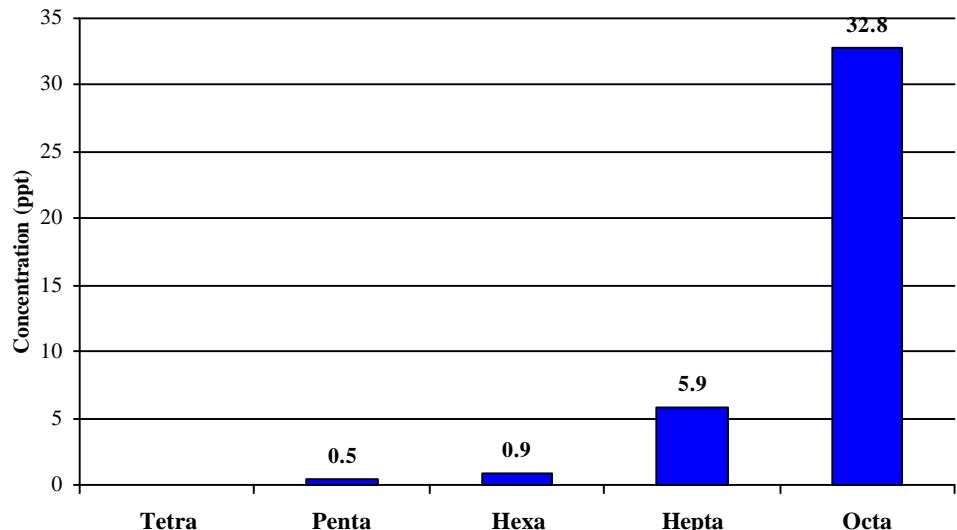
S24

**Full Concentrations: Homologue Profile**

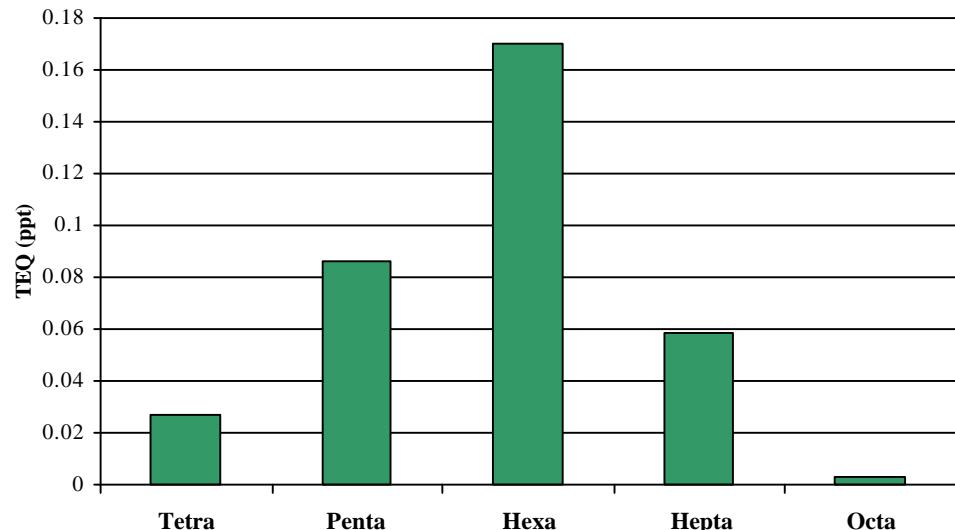
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

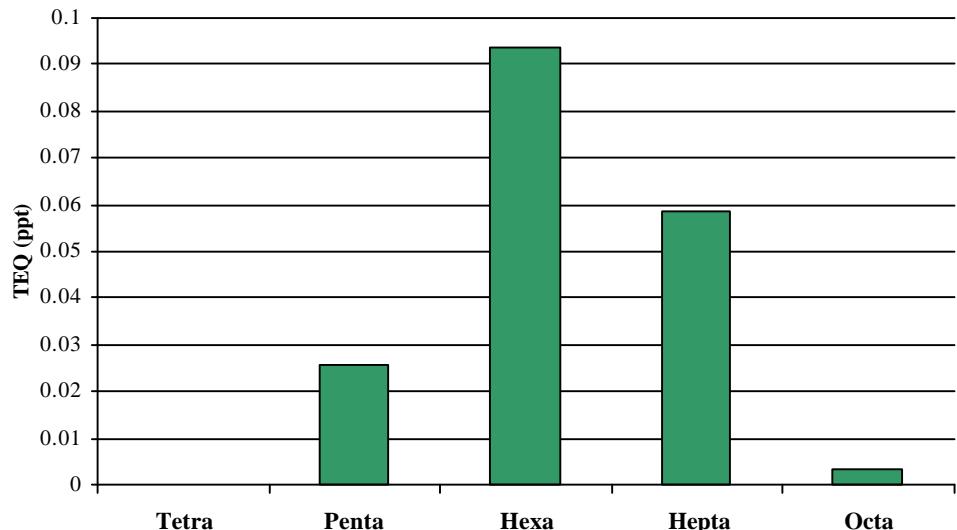
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)



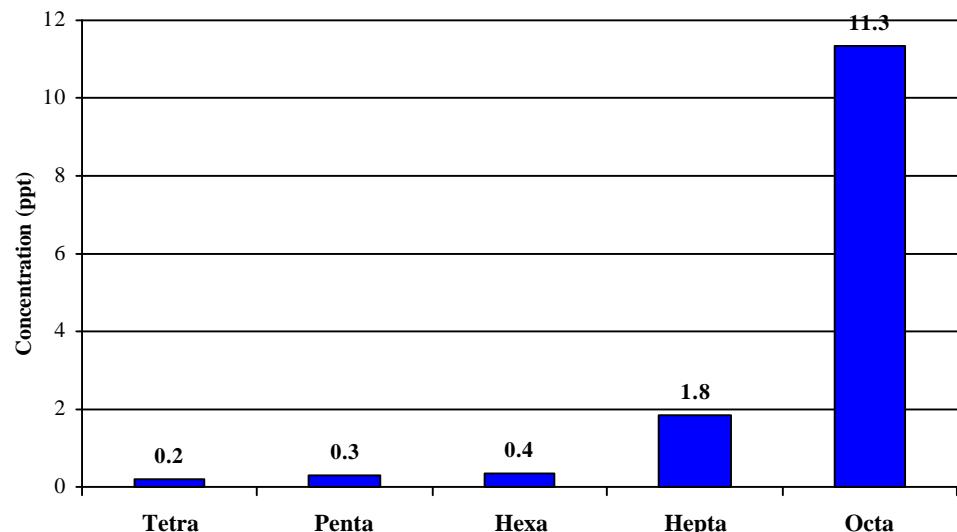
## Appendix B2. Homologue Profiles

Sample 847

S25

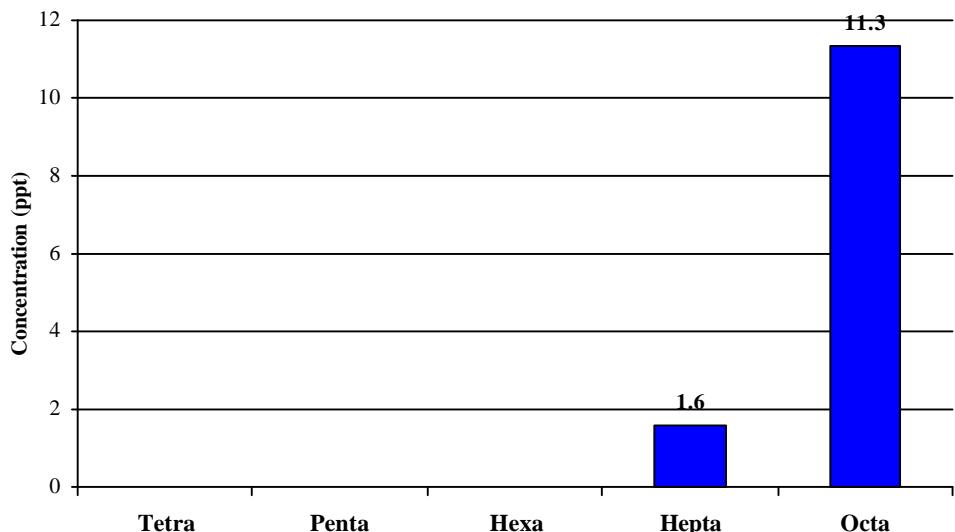
## Full Concentrations: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



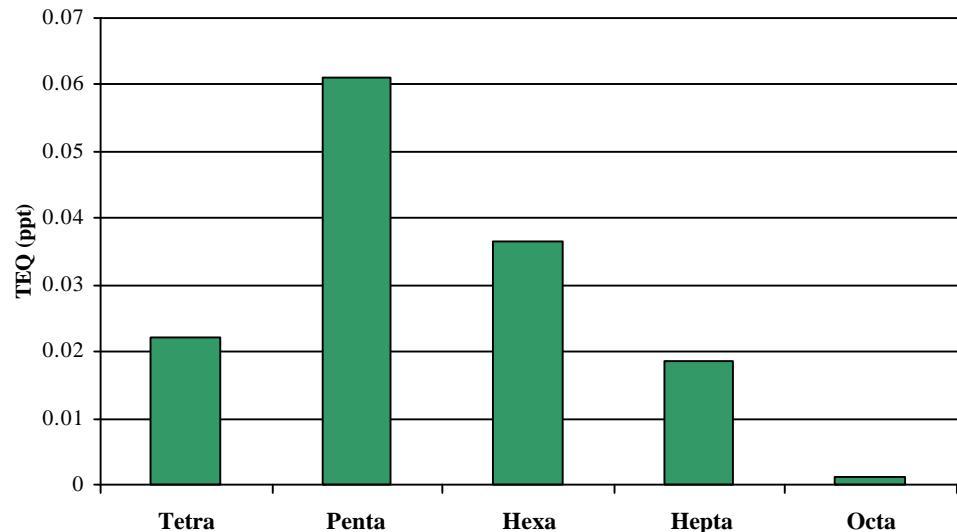
## Quantitative Concentrations: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



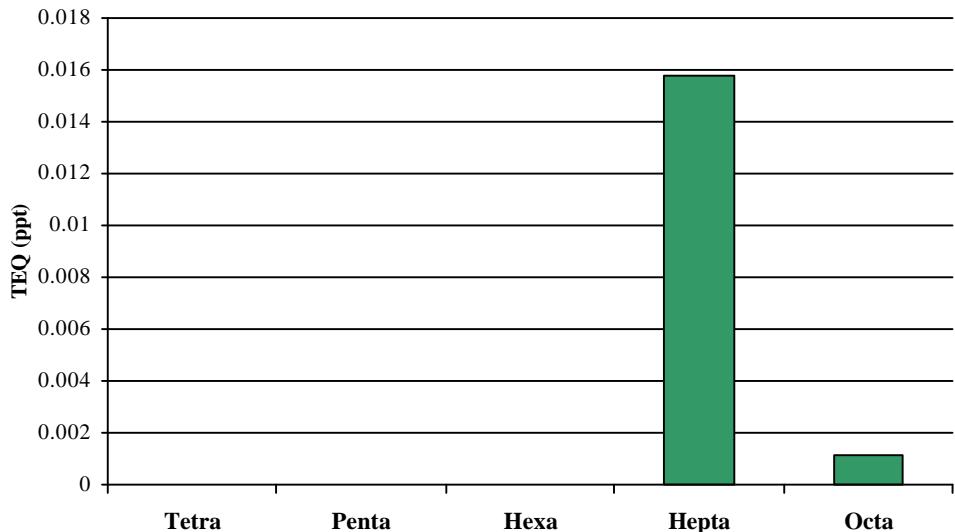
## Full TEQs: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



## Quantitative TEQs: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



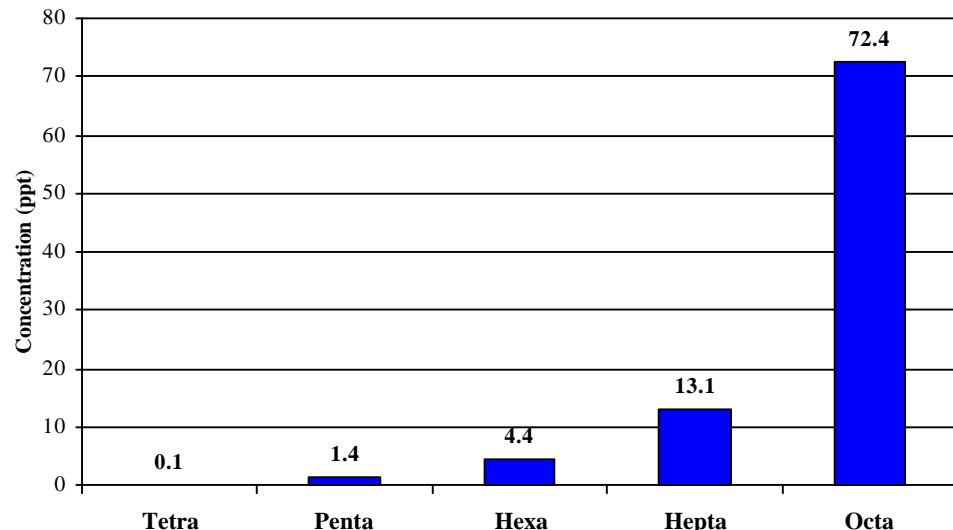
## Appendix B2. Homologue Profiles

Sample 547

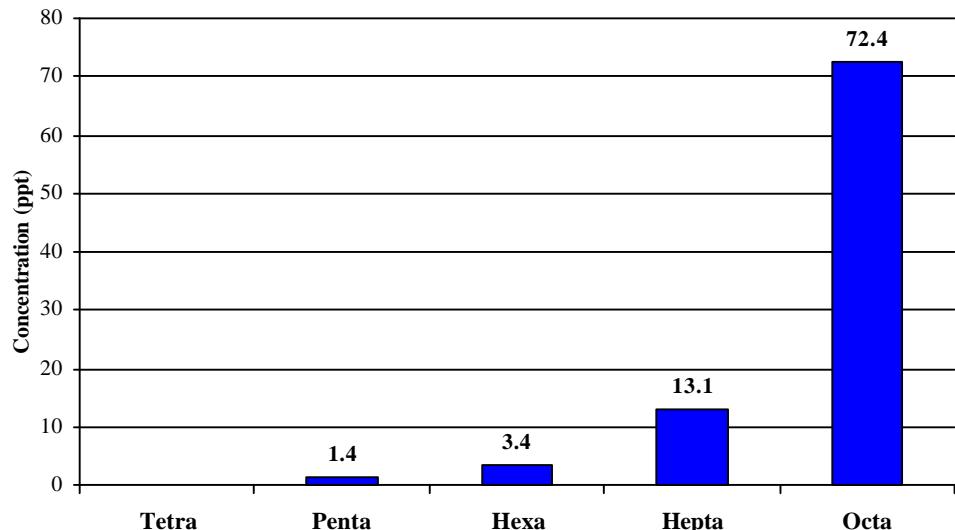
S26

**Full Concentrations: Homologue Profile**

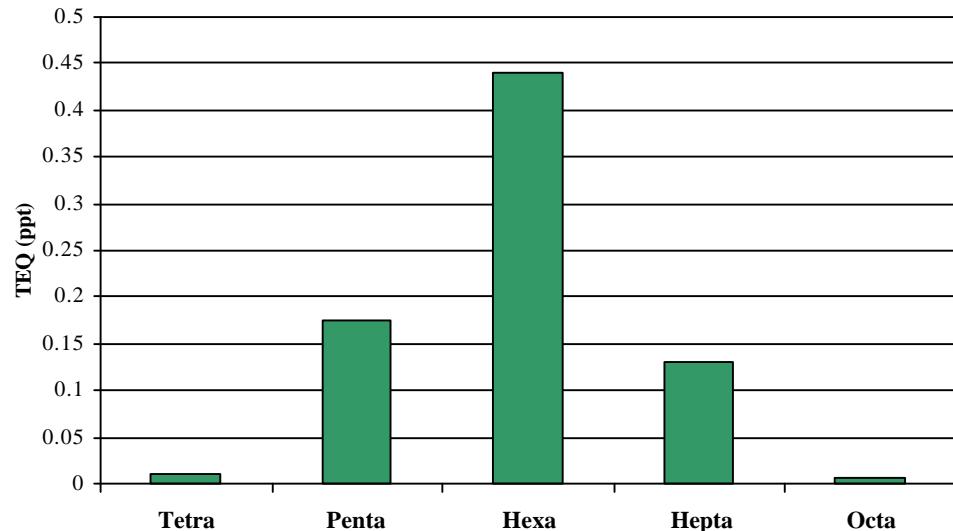
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

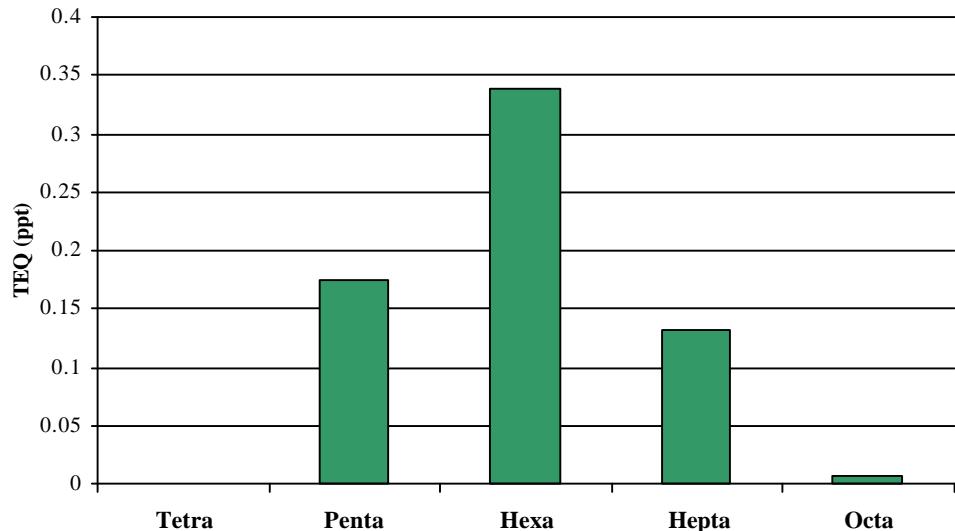
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)



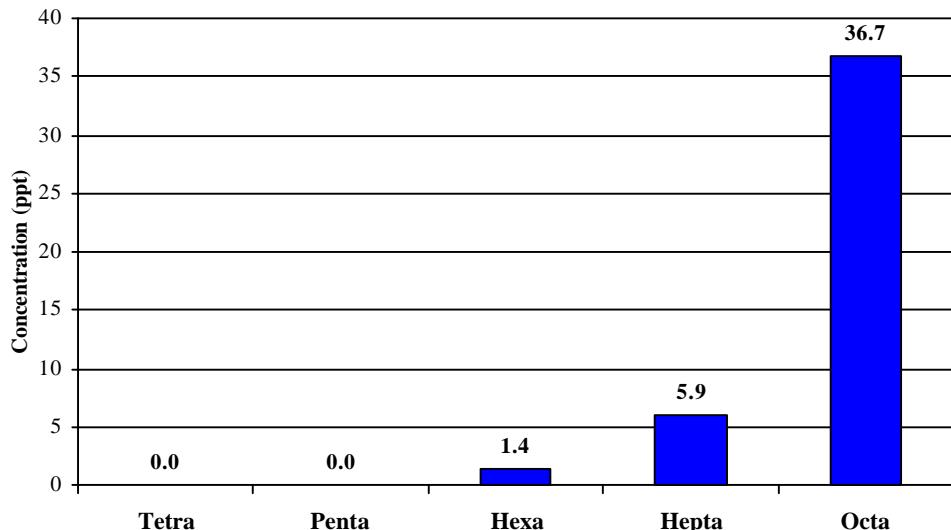
## Appendix B2. Homologue Profiles

Sample 768

S27

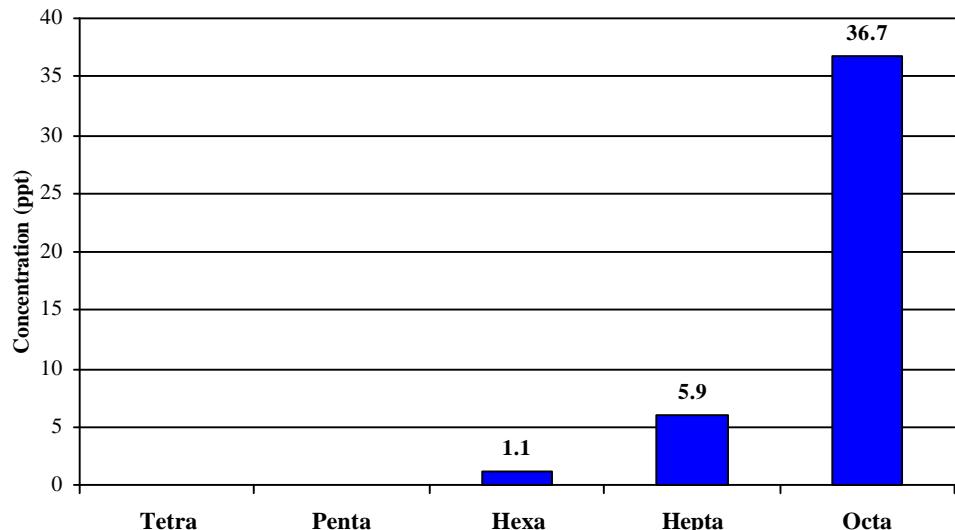
## Full Concentrations: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



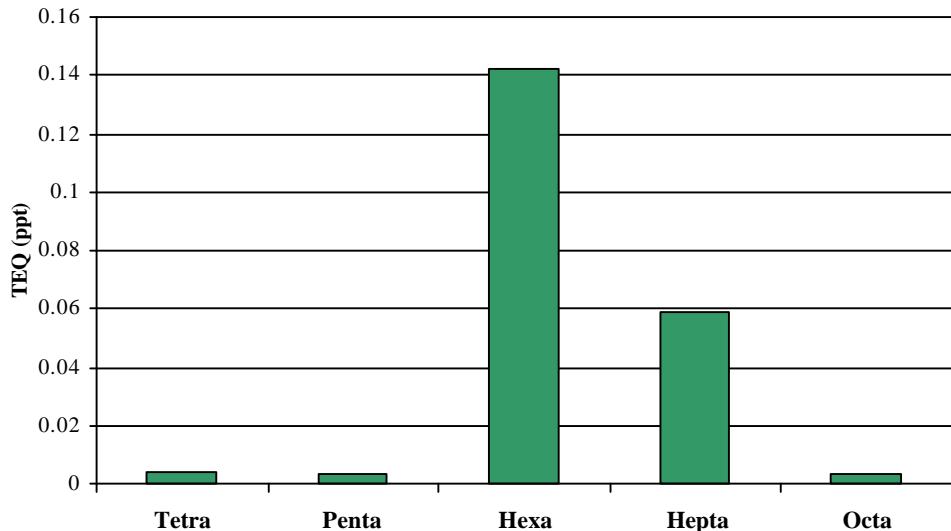
## Quantitative Concentrations: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



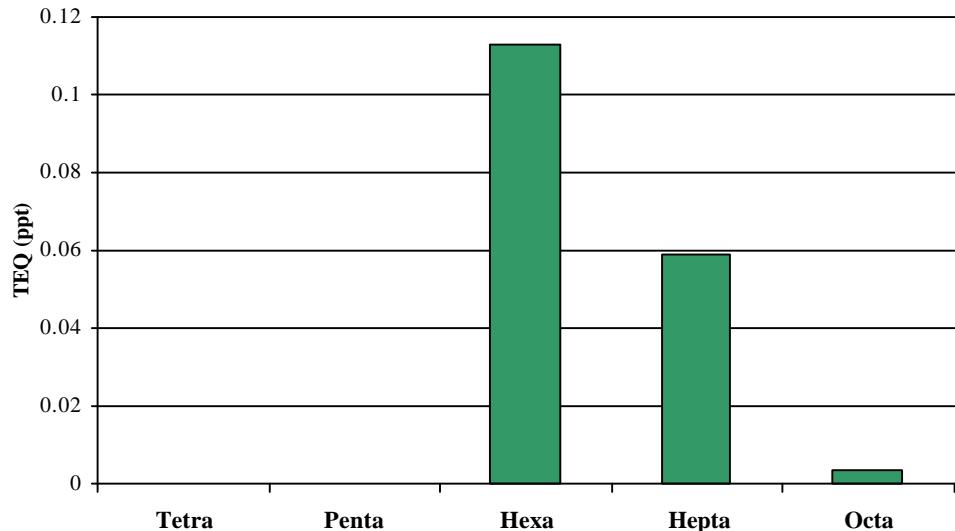
## Full TEQs: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



## Quantitative TEQs: Homologue Profile

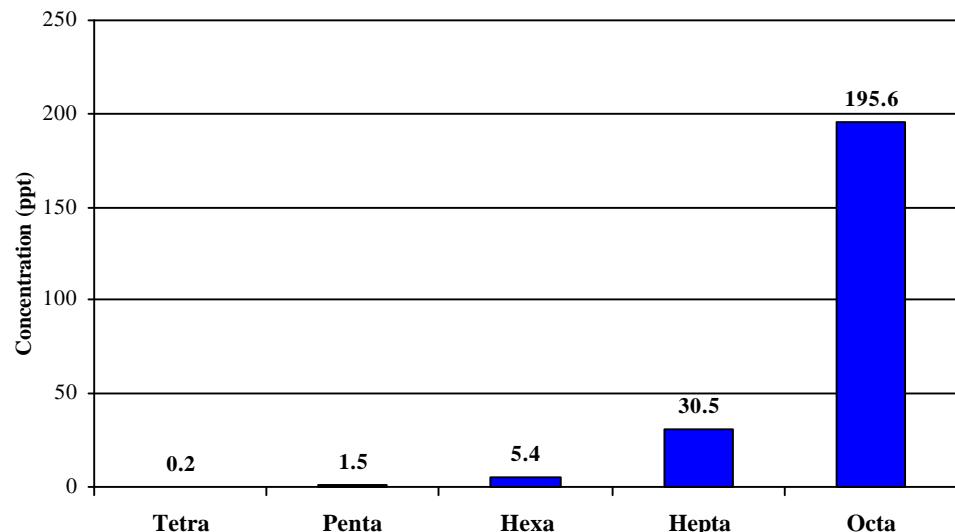
(Quantitative Data Set; Values Greater Than QL)



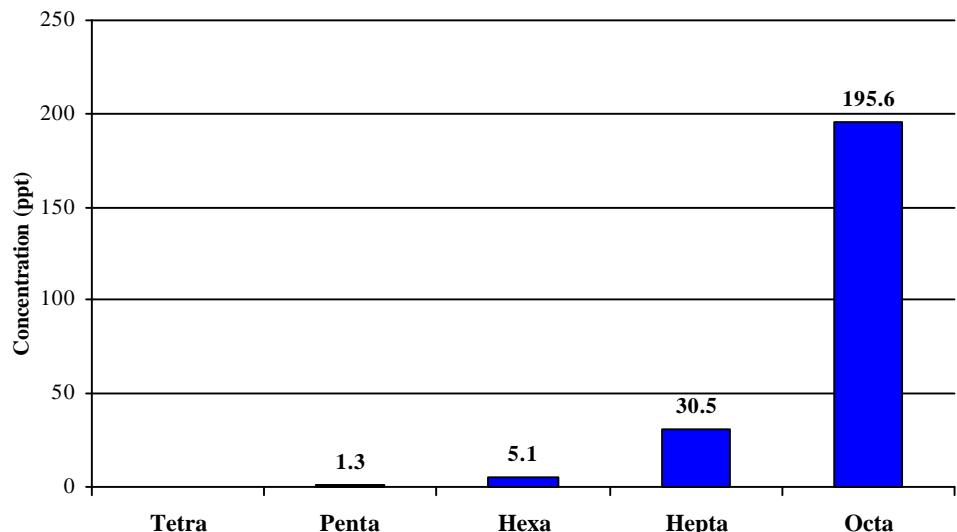
Sample 264

S28

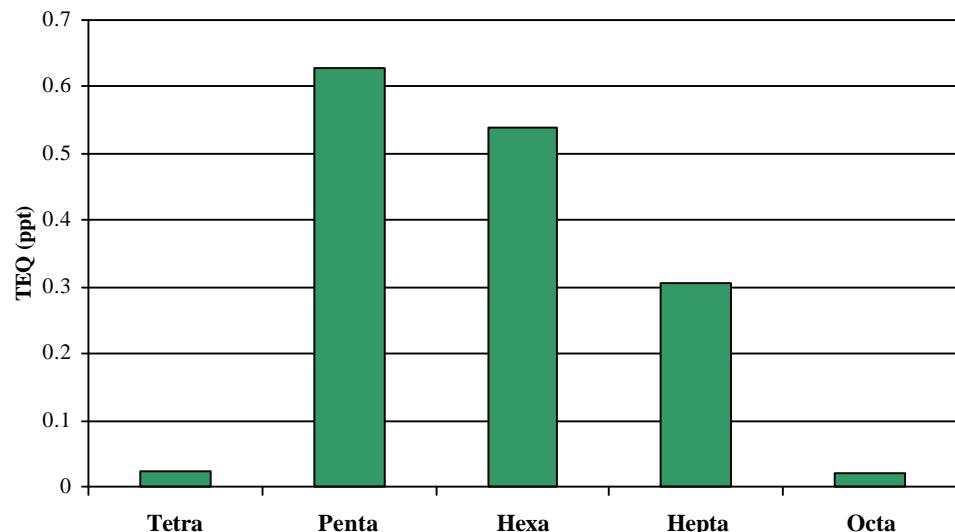
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



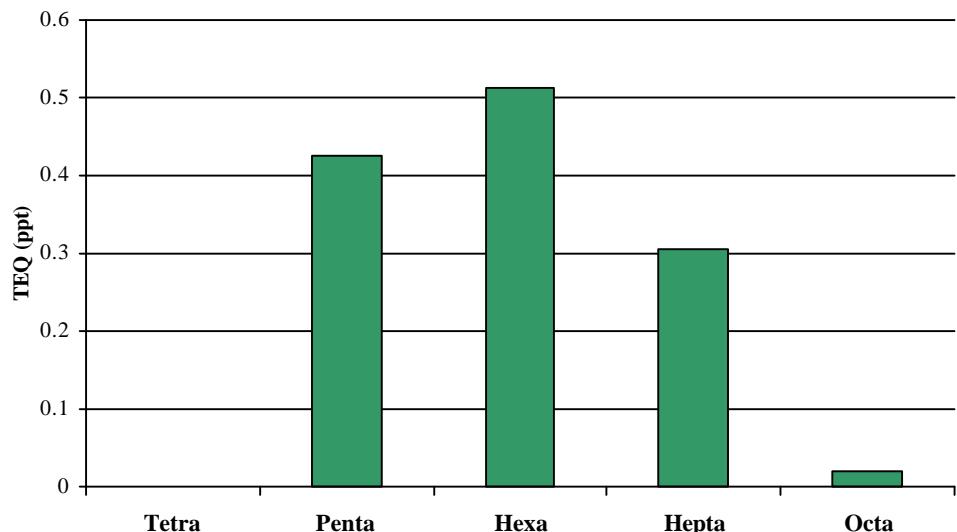
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

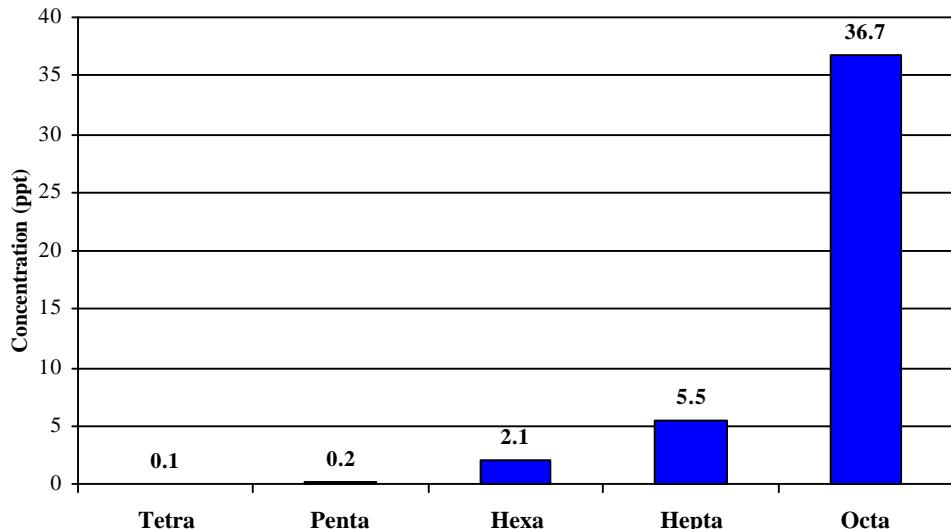


Sample 443

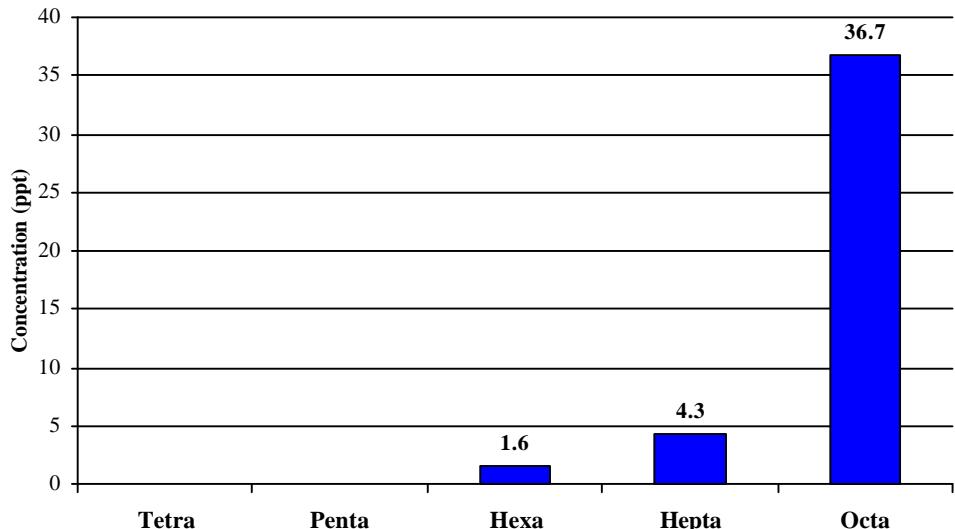
S29

**Full Concentrations: Homologue Profile**

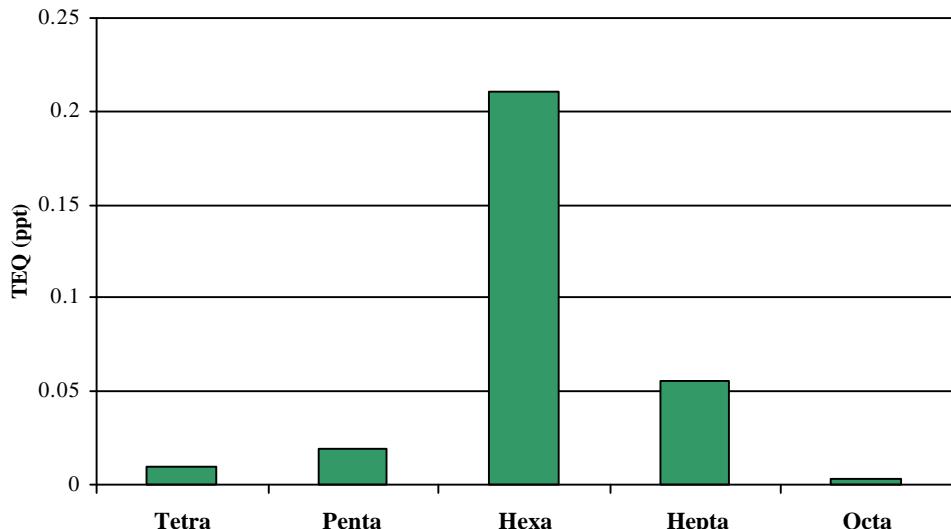
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

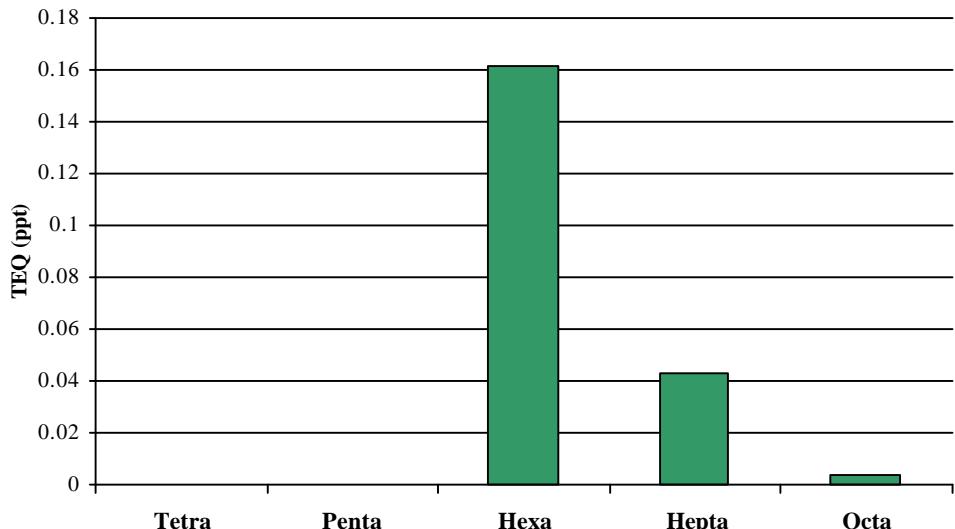
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)

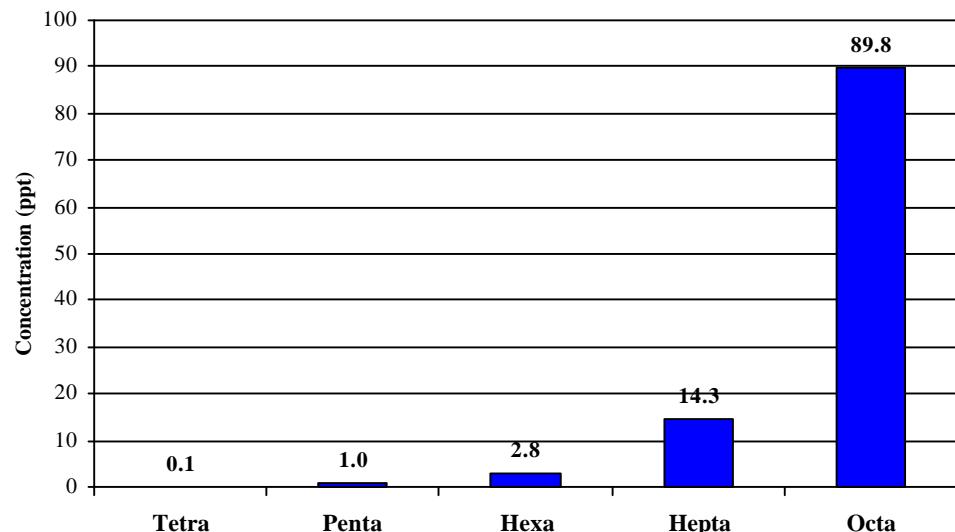


## Appendix B2. Homologue Profiles

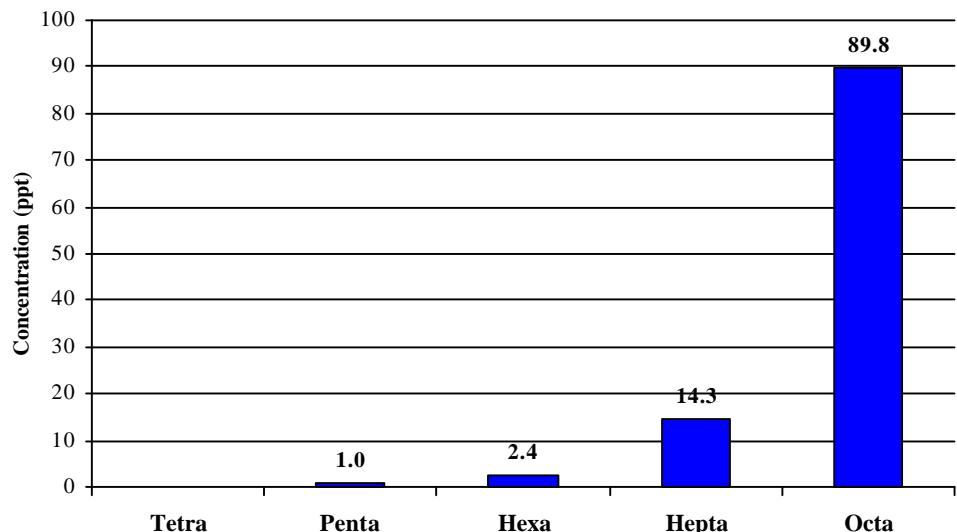
Sample 641

S3

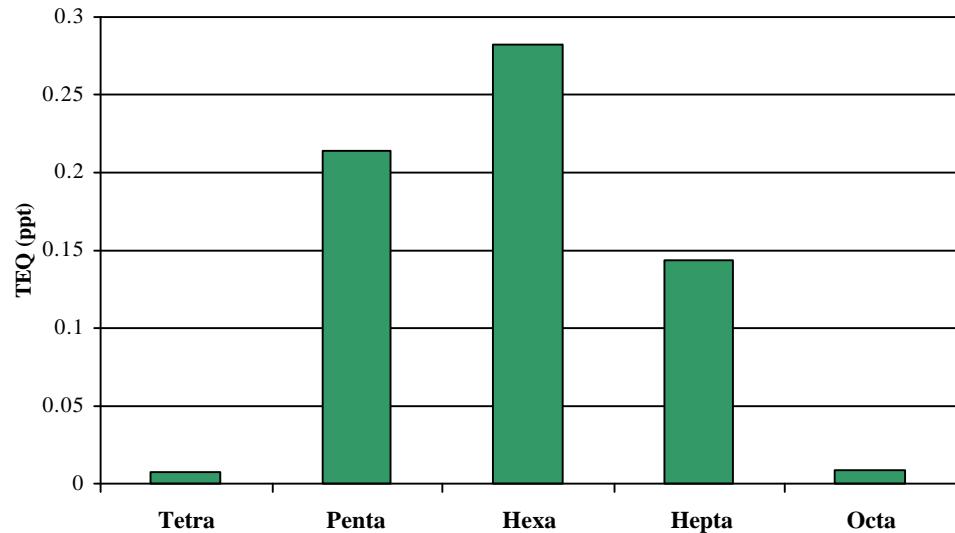
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



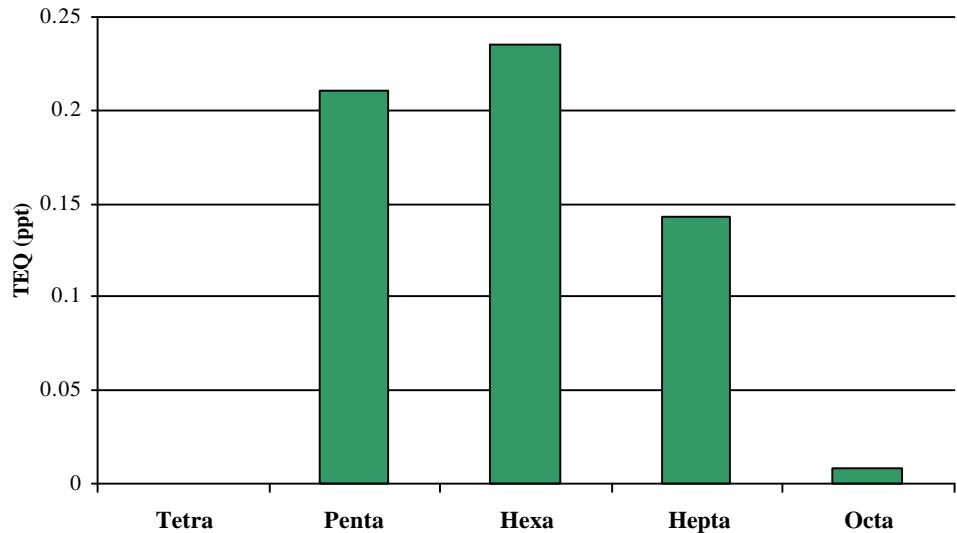
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)

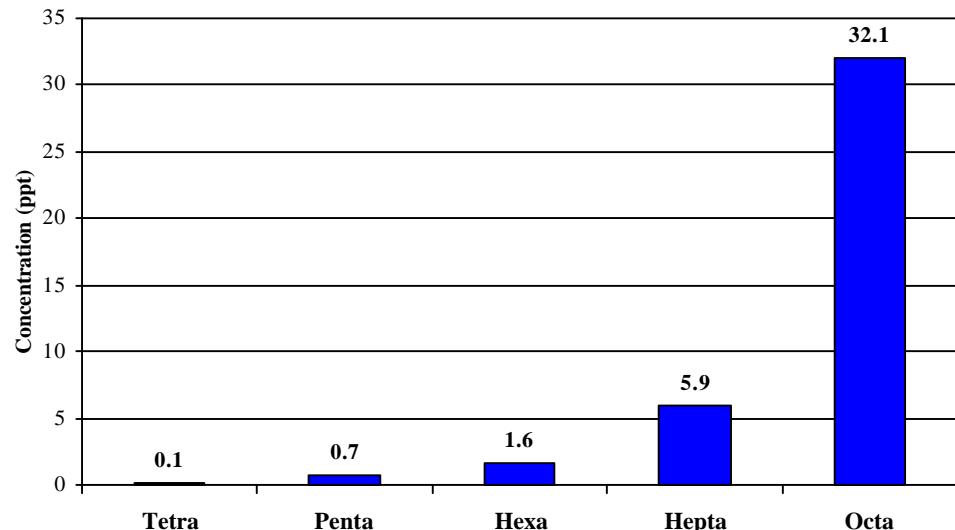


**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

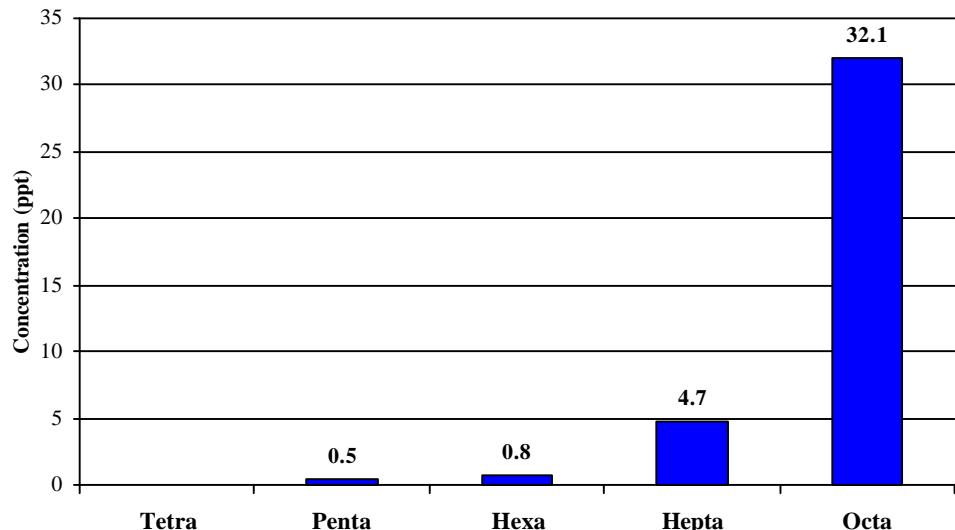


*Sample 736**S30*

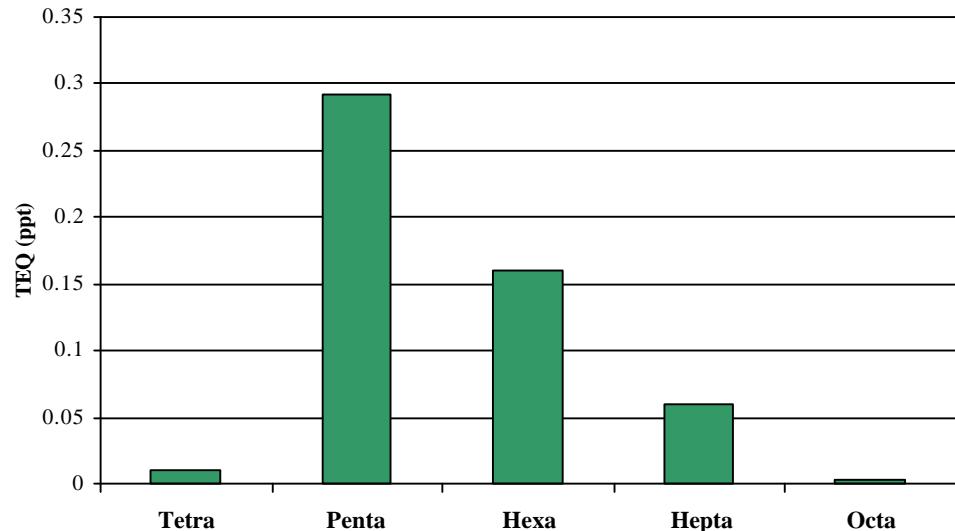
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



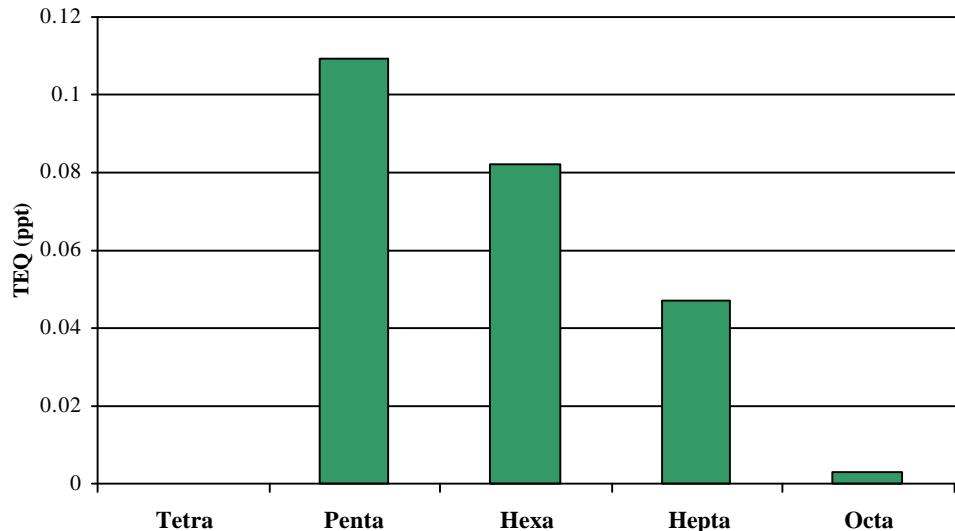
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



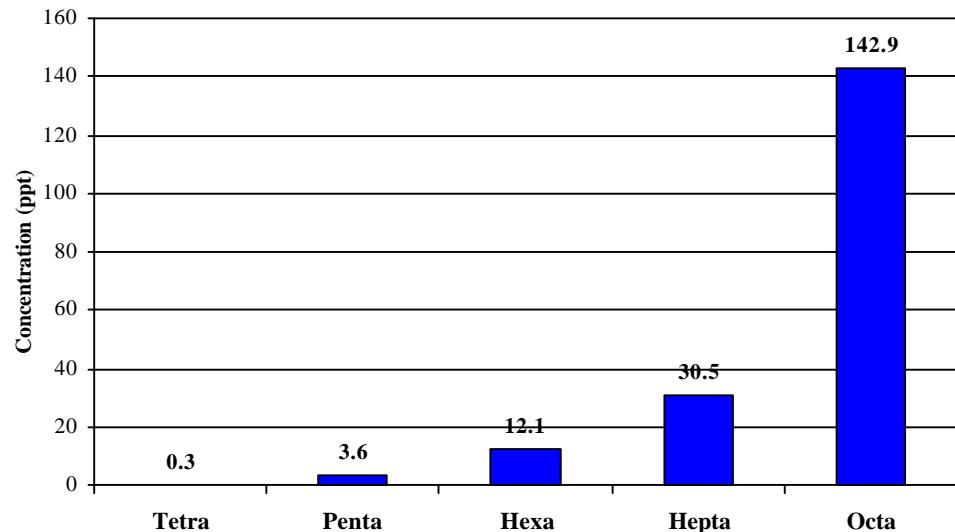
**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



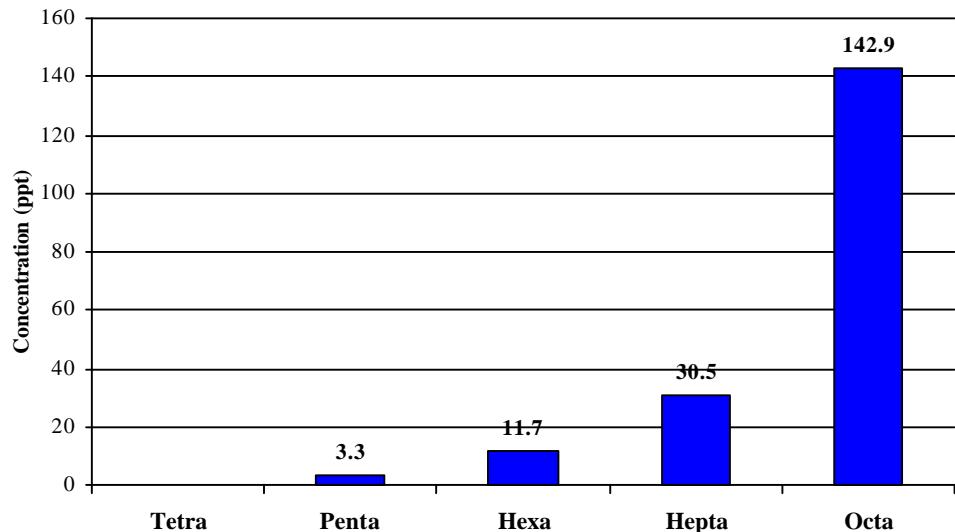
Sample 616

S31

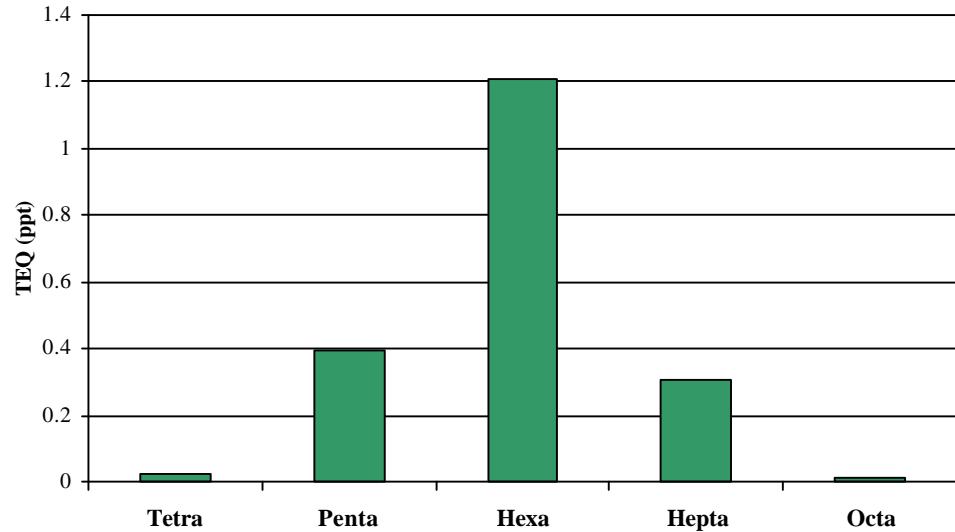
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



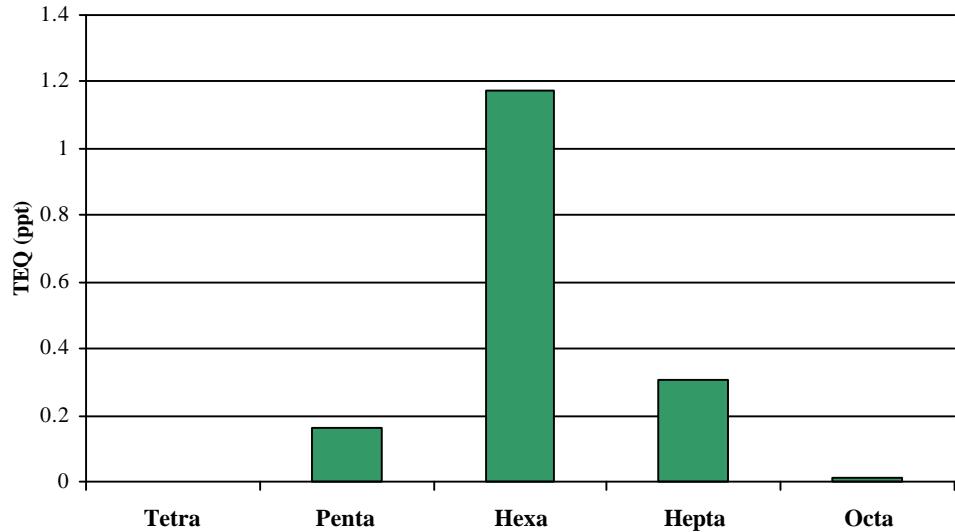
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

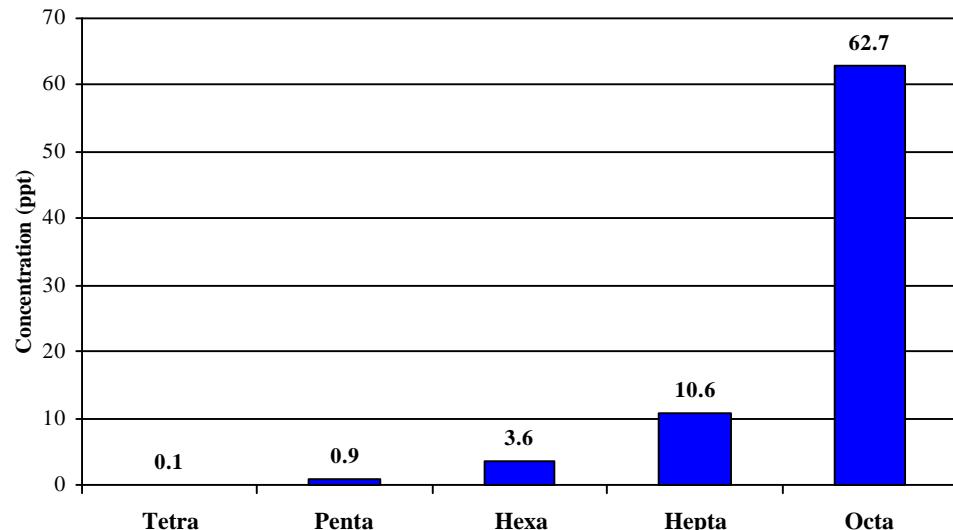


Sample 945

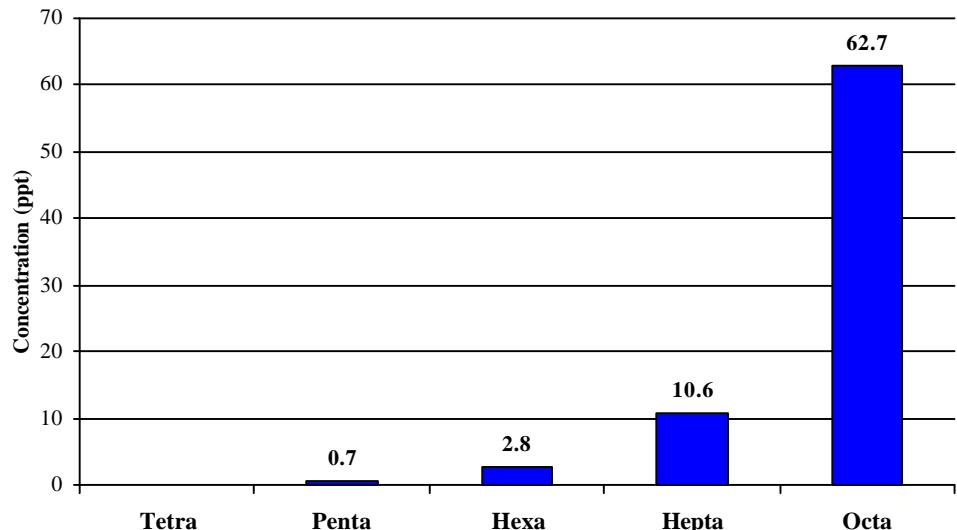
S32

**Full Concentrations: Homologue Profile**

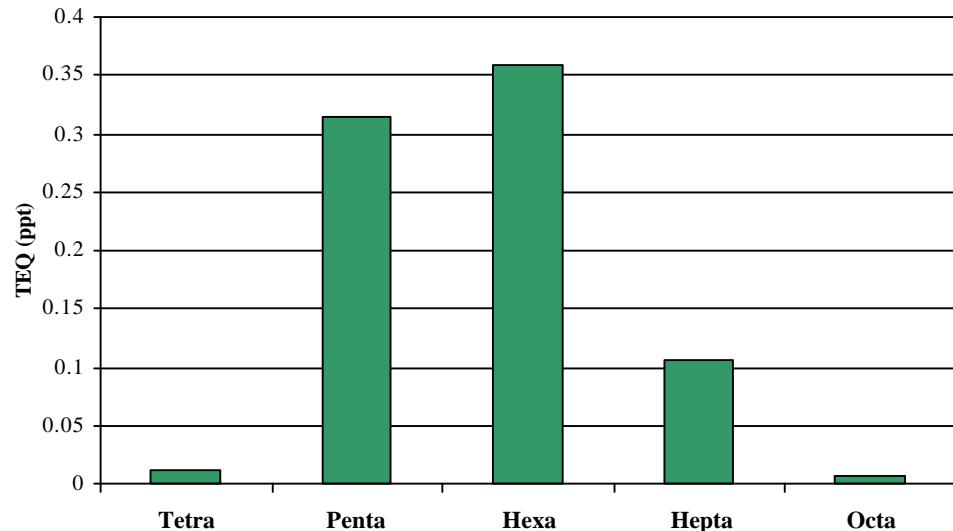
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

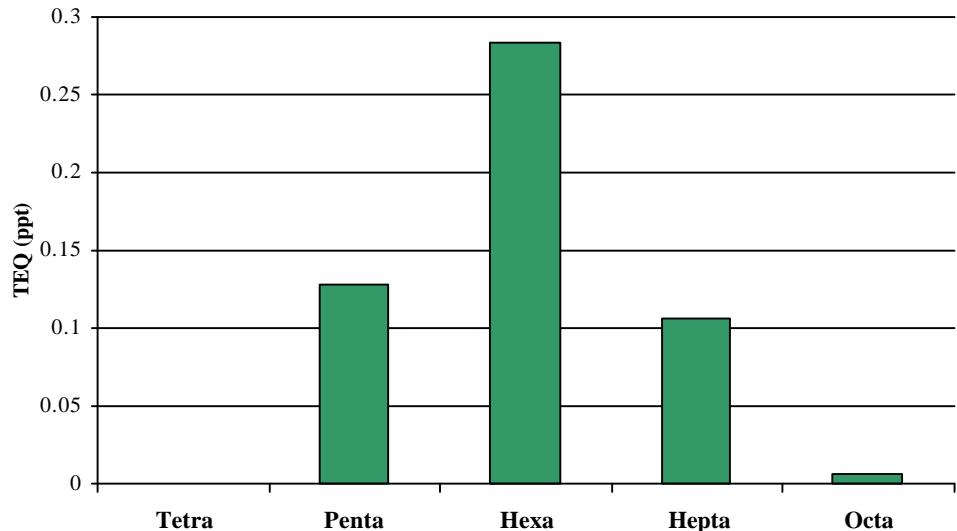
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)

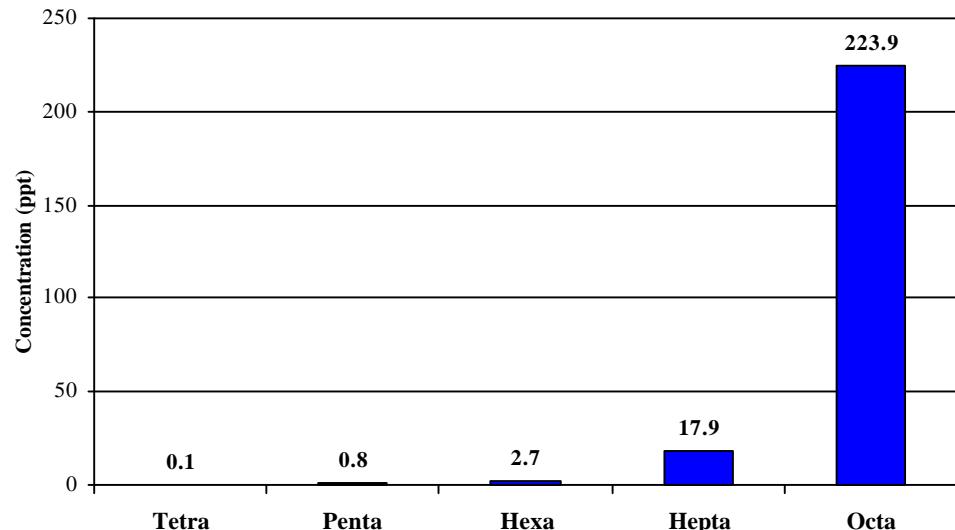


## Appendix B2. Homologue Profiles

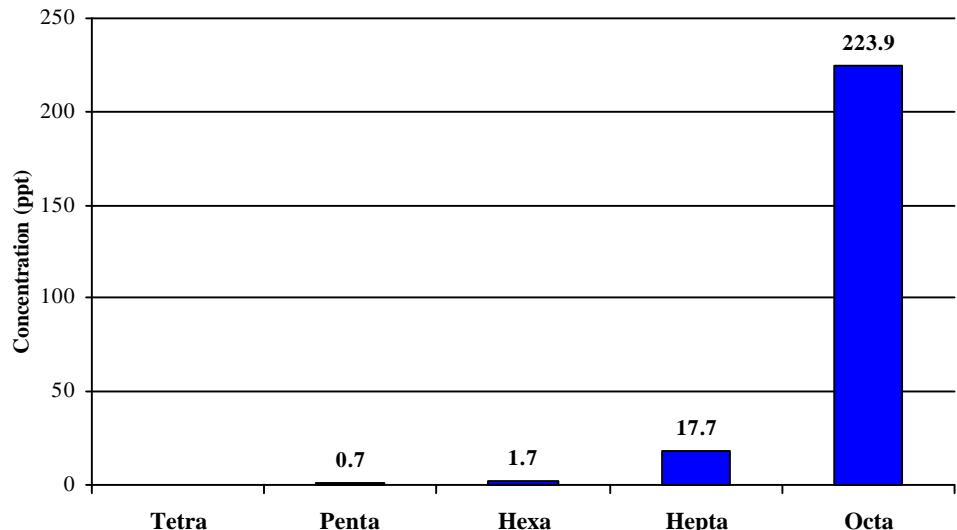
Sample 564

S33

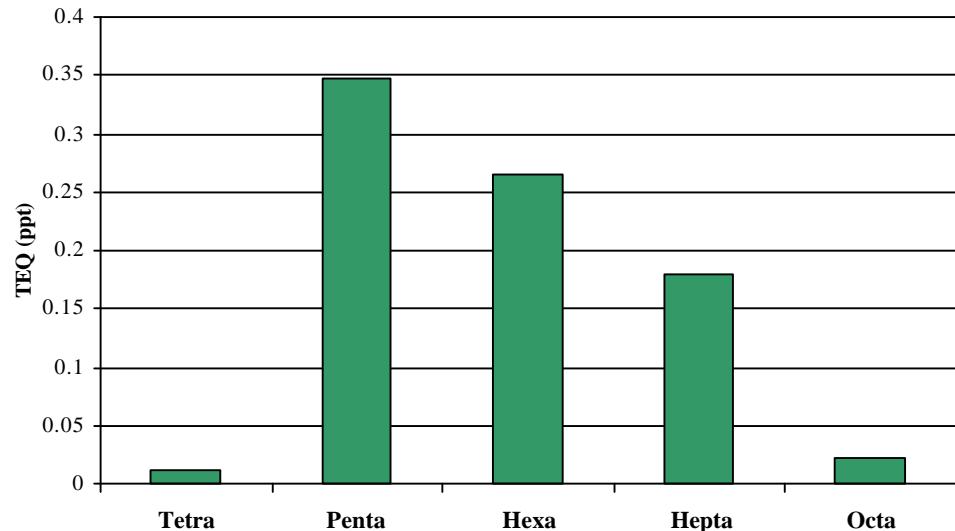
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



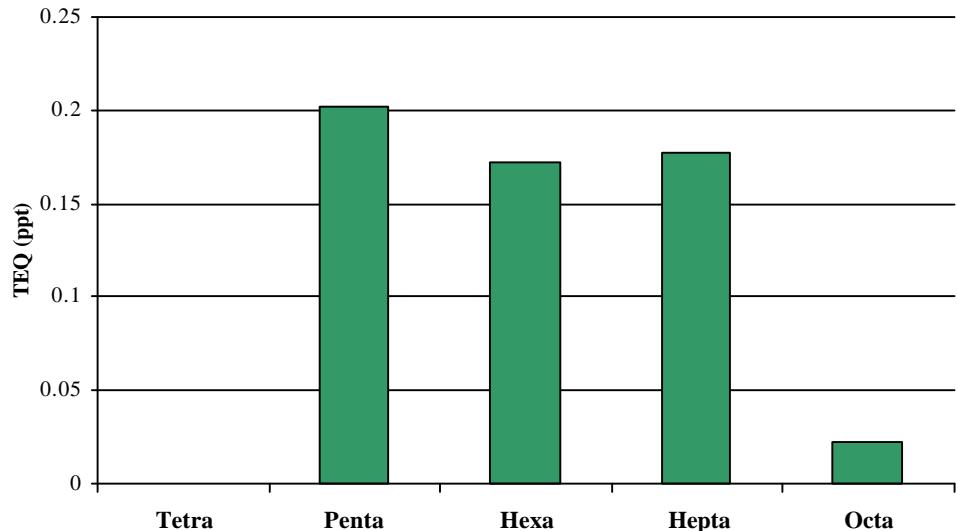
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



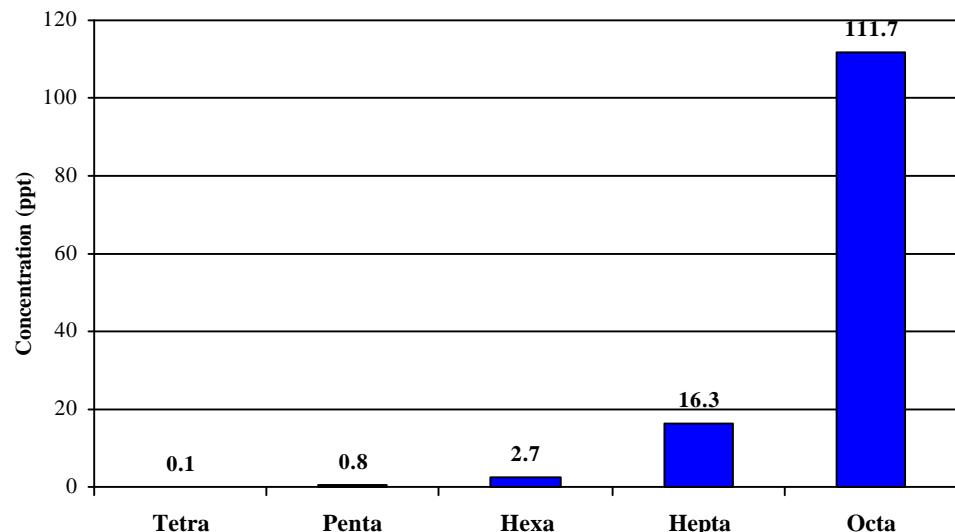
## Appendix B2. Homologue Profiles

Sample 693

S34

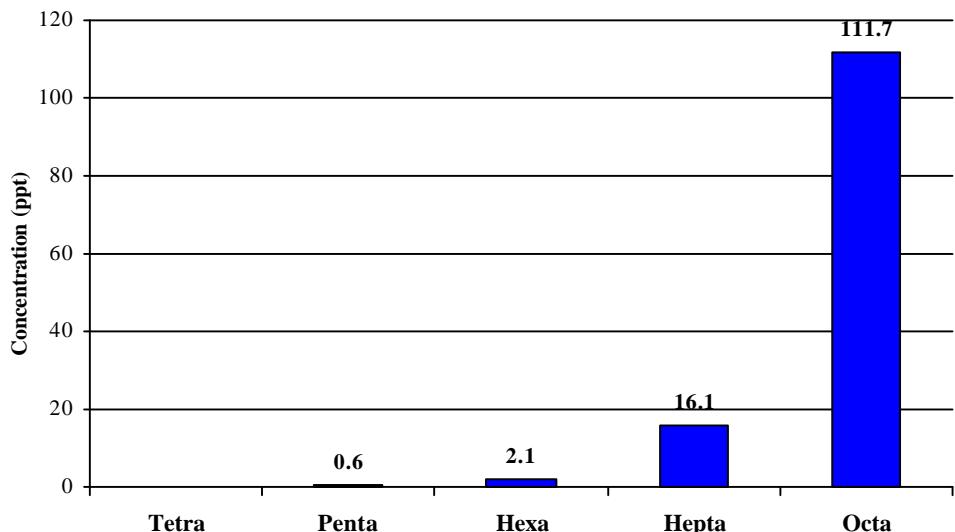
## Full Concentrations: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



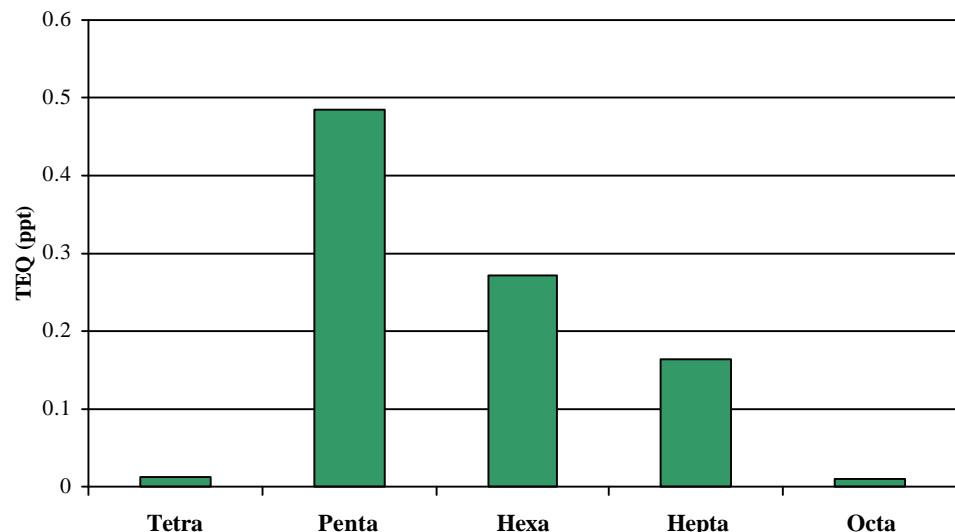
## Quantitative Concentrations: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



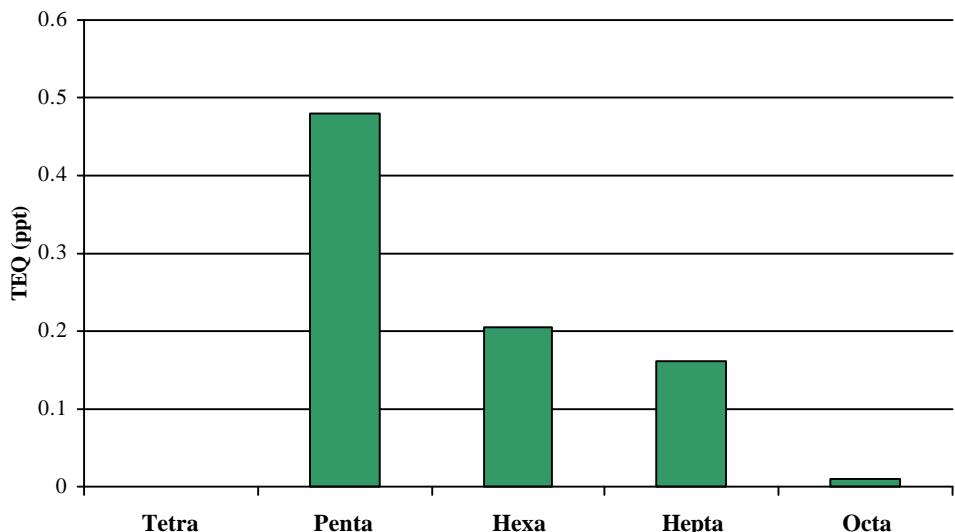
## Full TEQs: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



## Quantitative TEQs: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



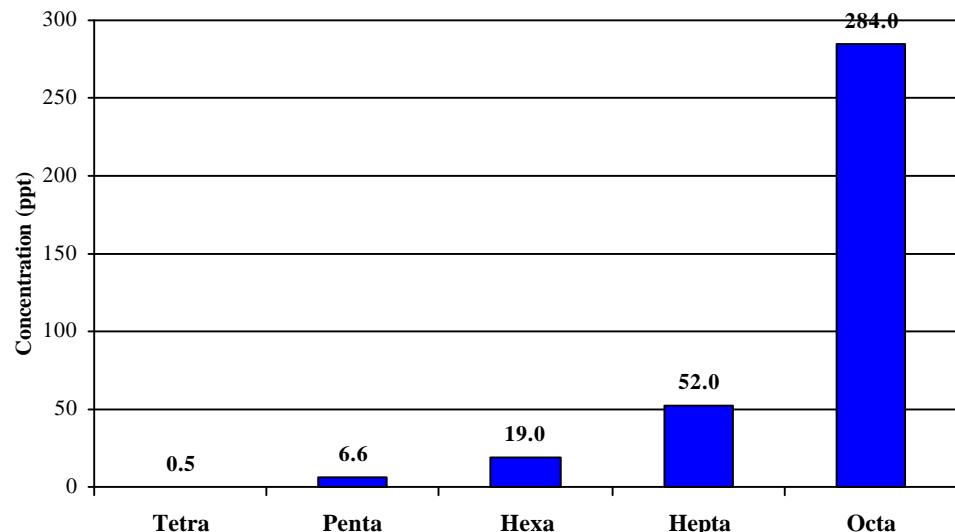
## Appendix B2. Homologue Profiles

Sample 389

S35

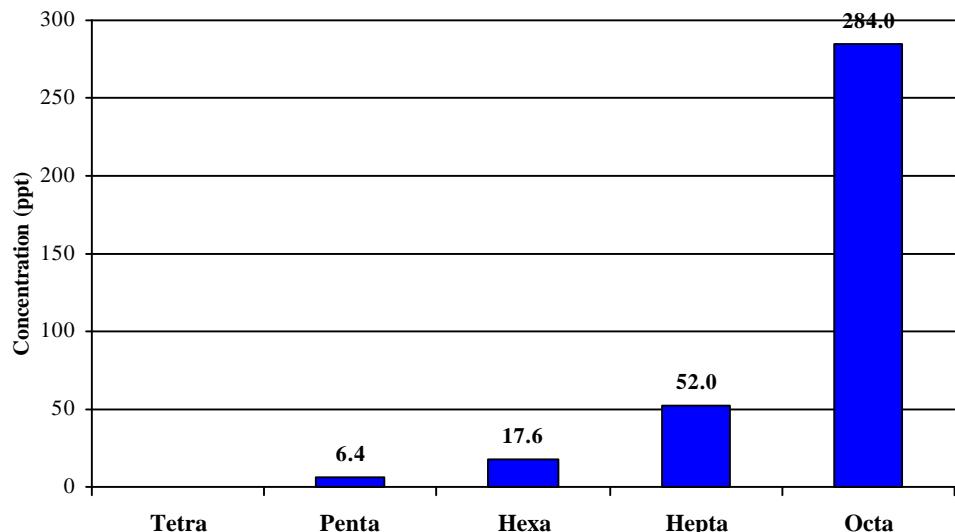
## Full Concentrations: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



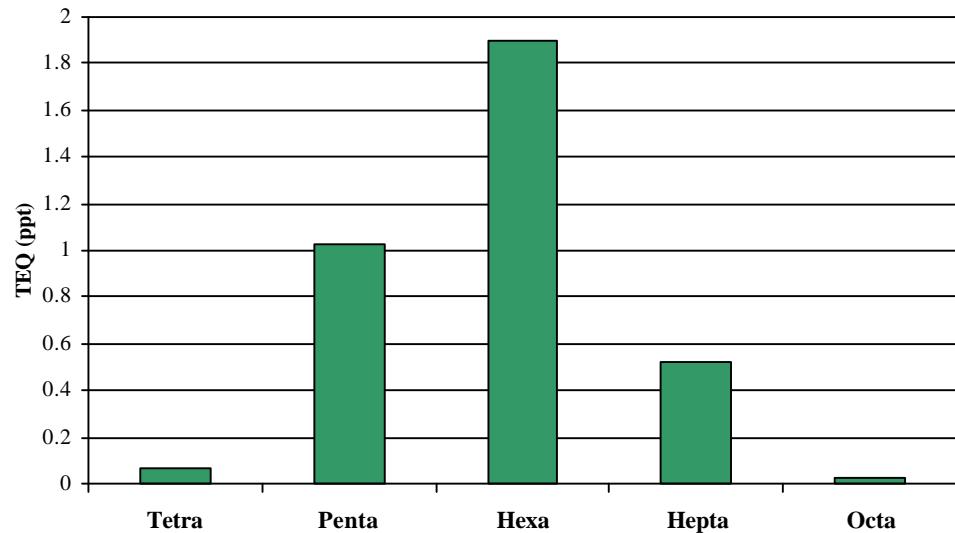
## Quantitative Concentrations: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)



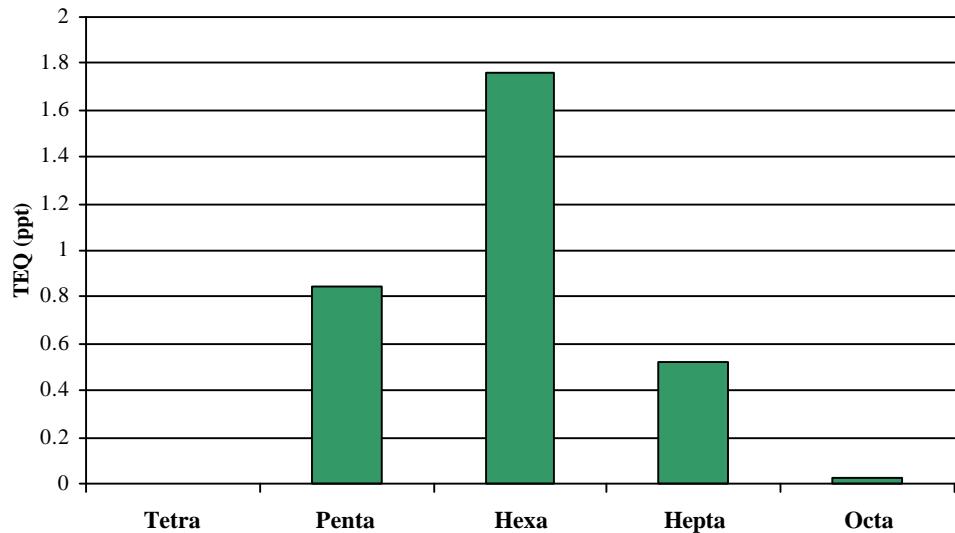
## Full TEQs: Homologue Profile

(Full Data Set With Proxies = 1/2 DL)



## Quantitative TEQs: Homologue Profile

(Quantitative Data Set; Values Greater Than QL)

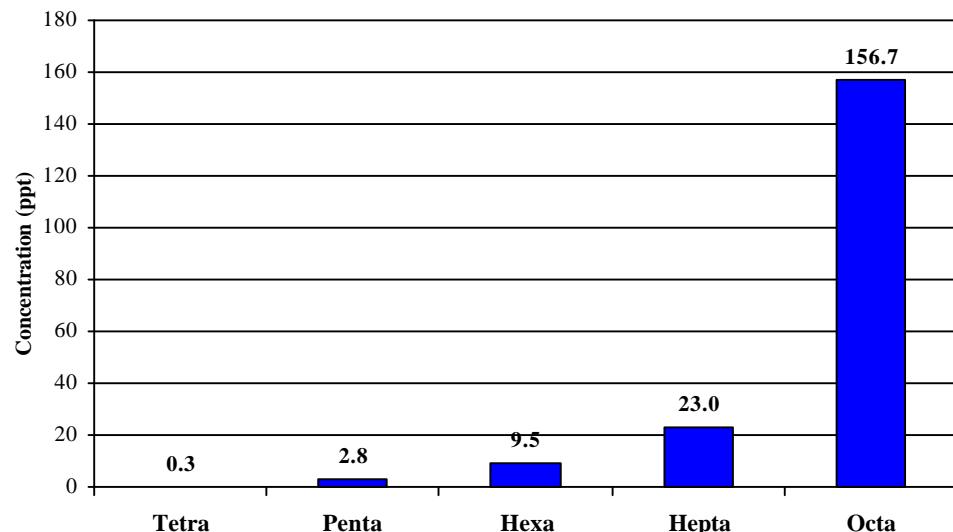


## Appendix B2. Homologue Profiles

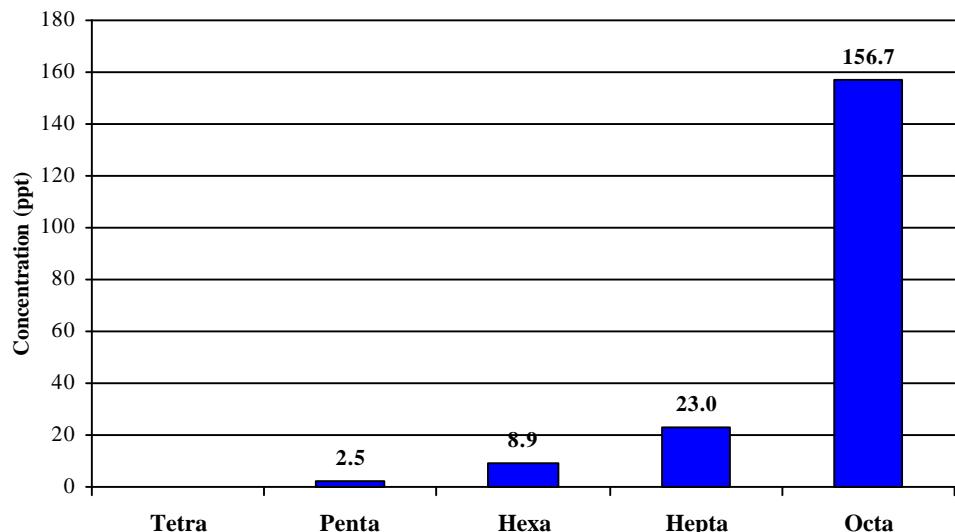
Sample 991

S36

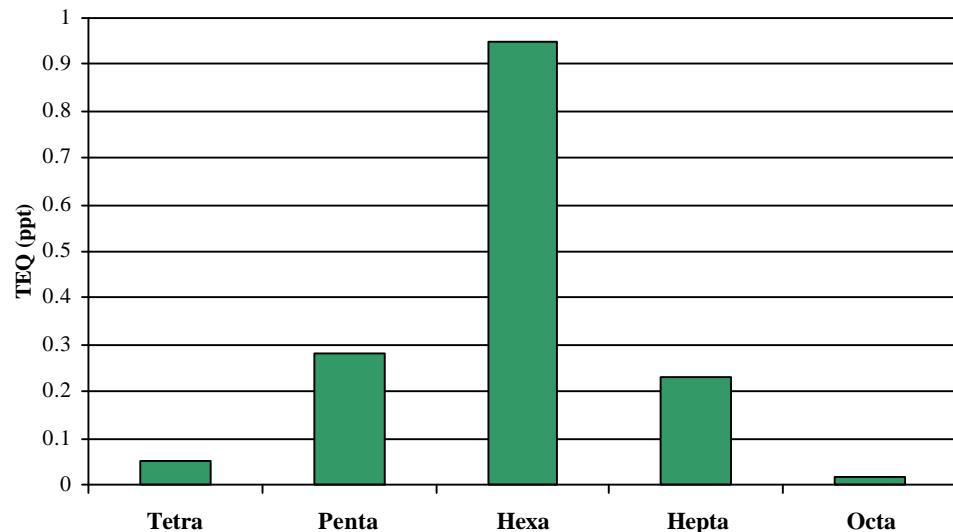
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



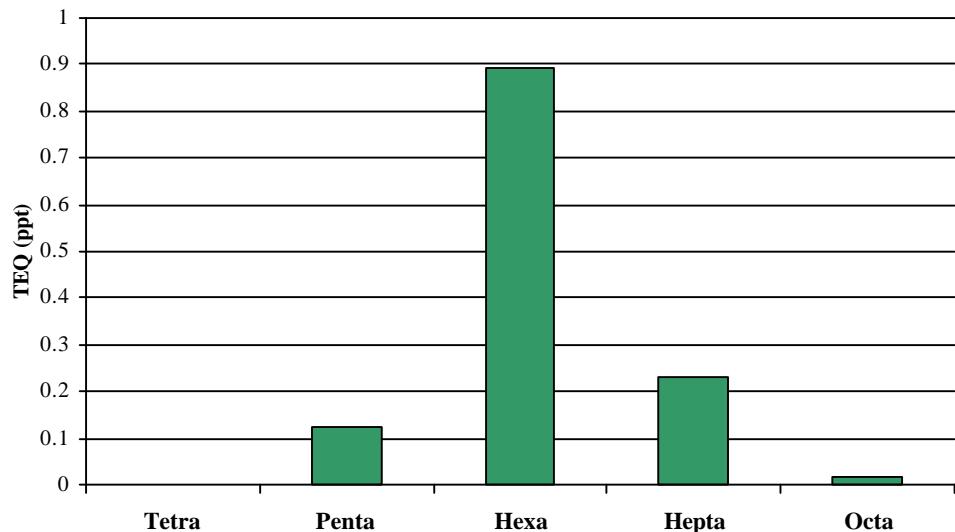
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



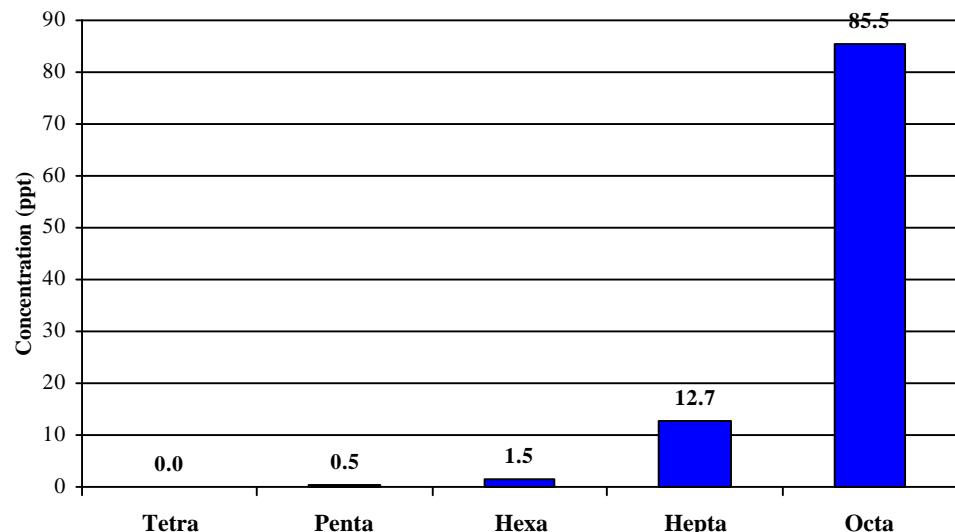
**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



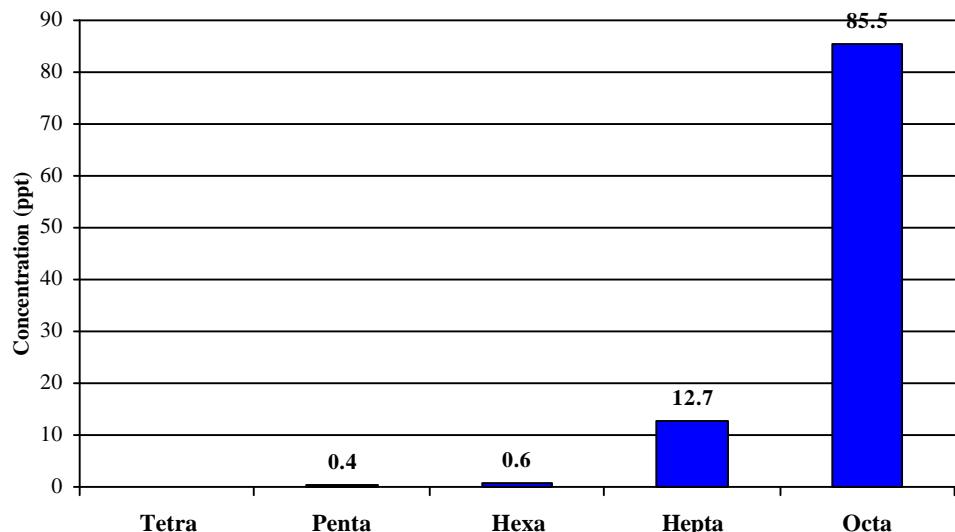
Sample 102

S4

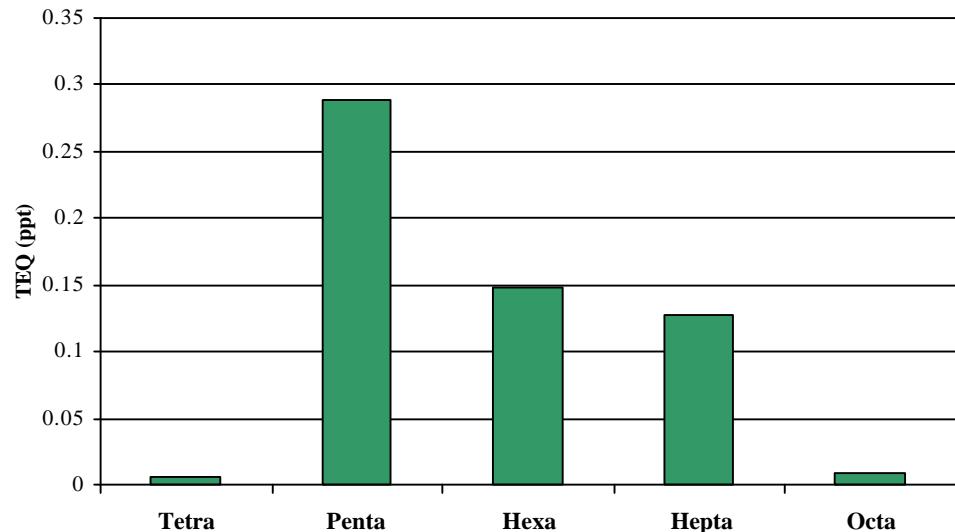
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



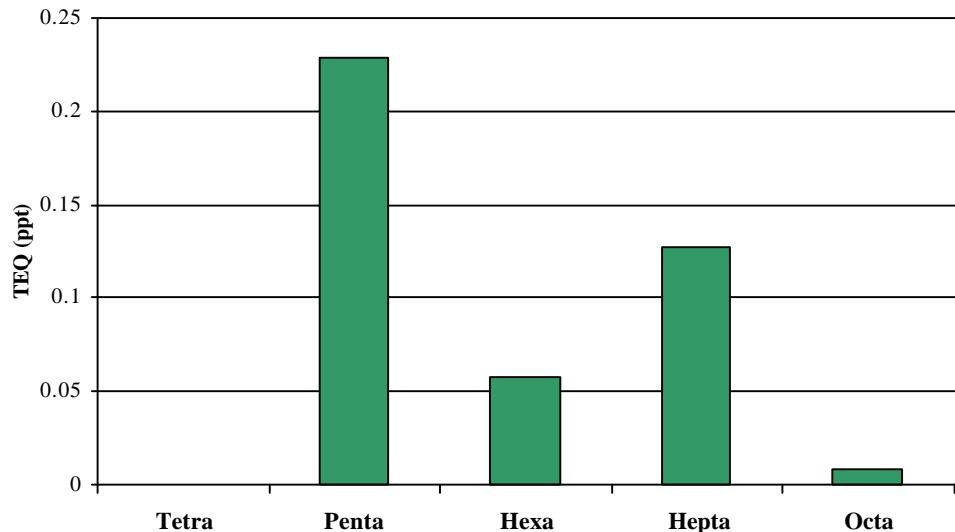
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



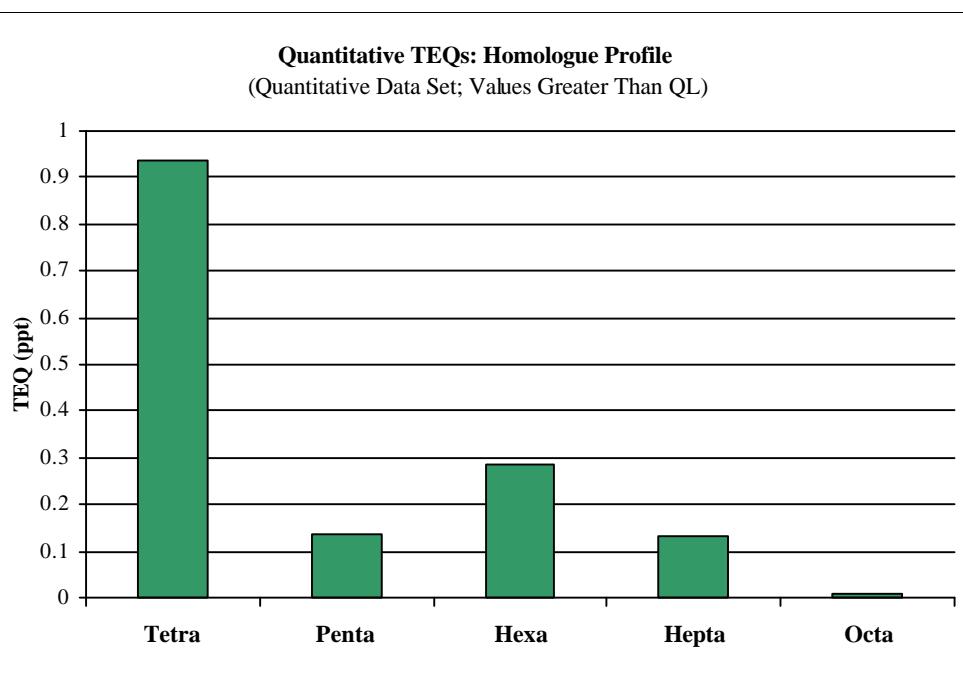
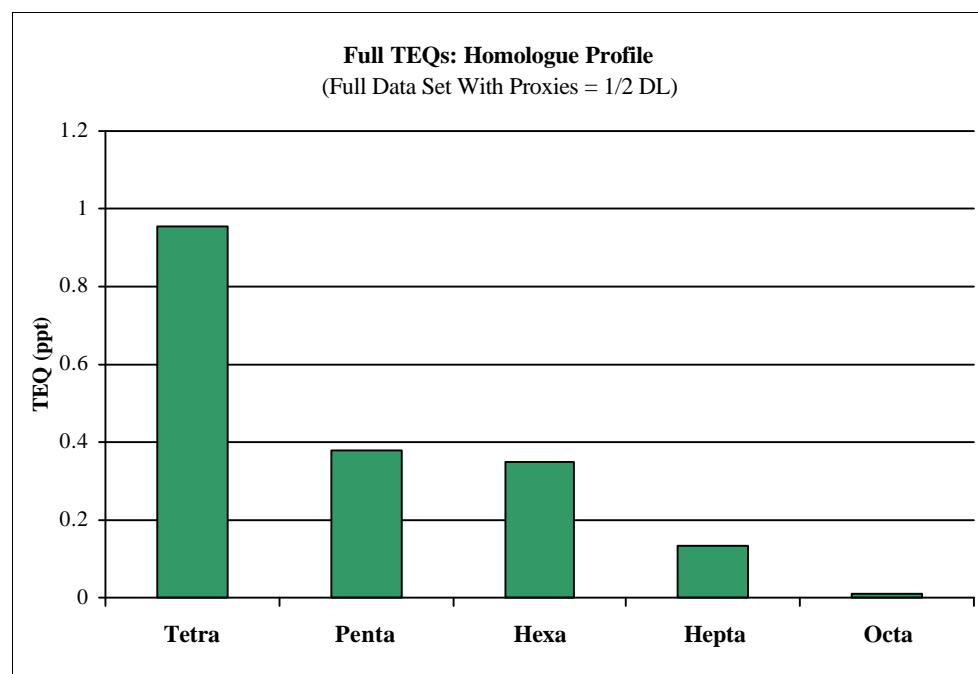
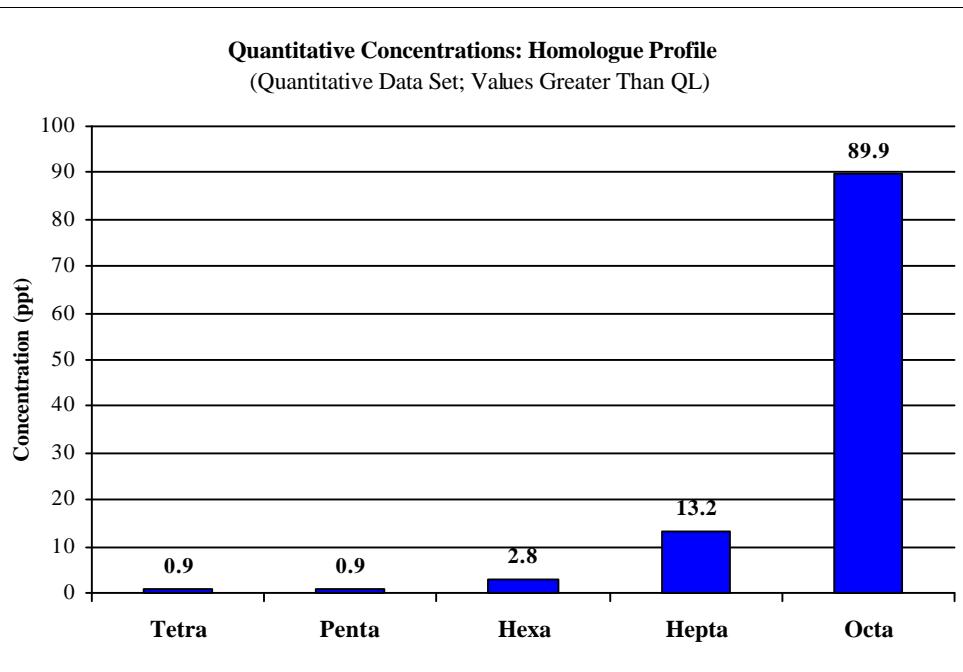
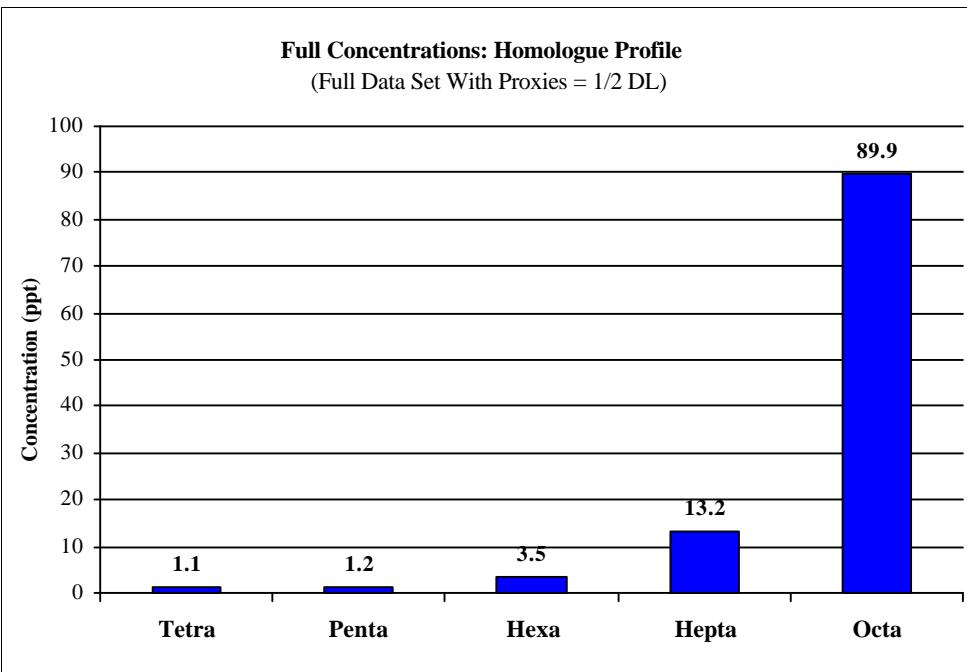
**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



## Appendix B2. Homologue Profiles

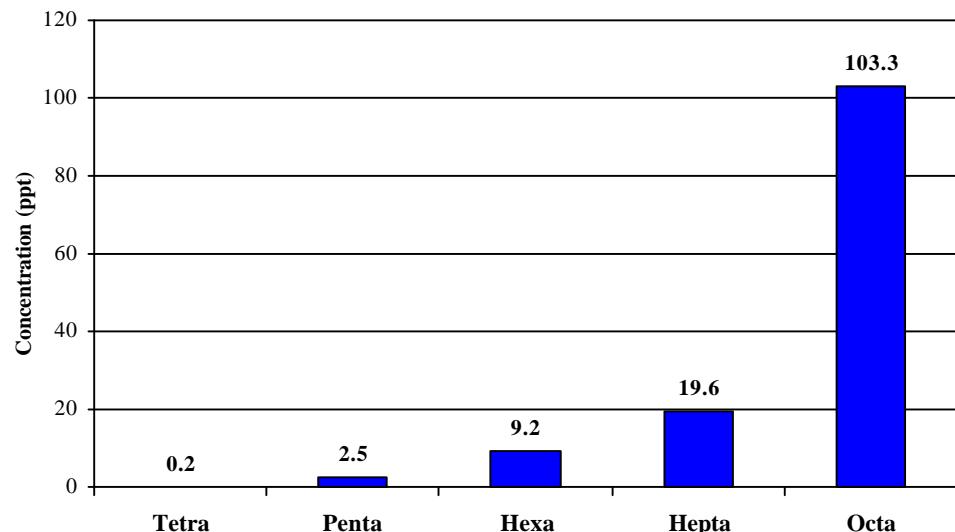
Sample 234

S5

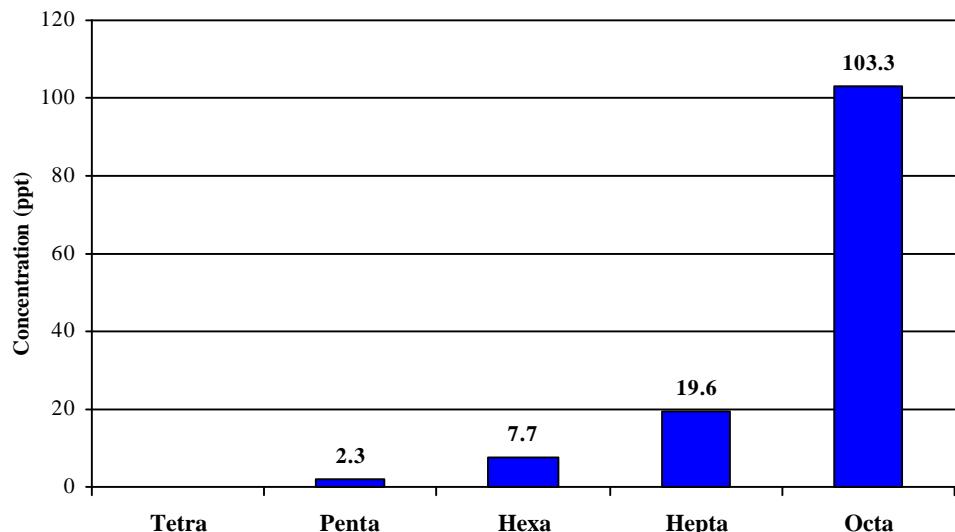


*Sample 830**S6*

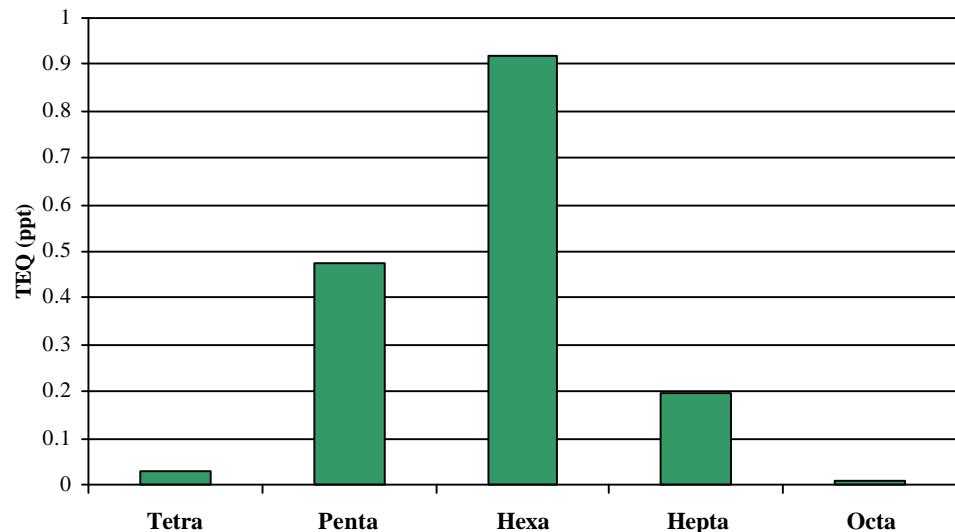
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



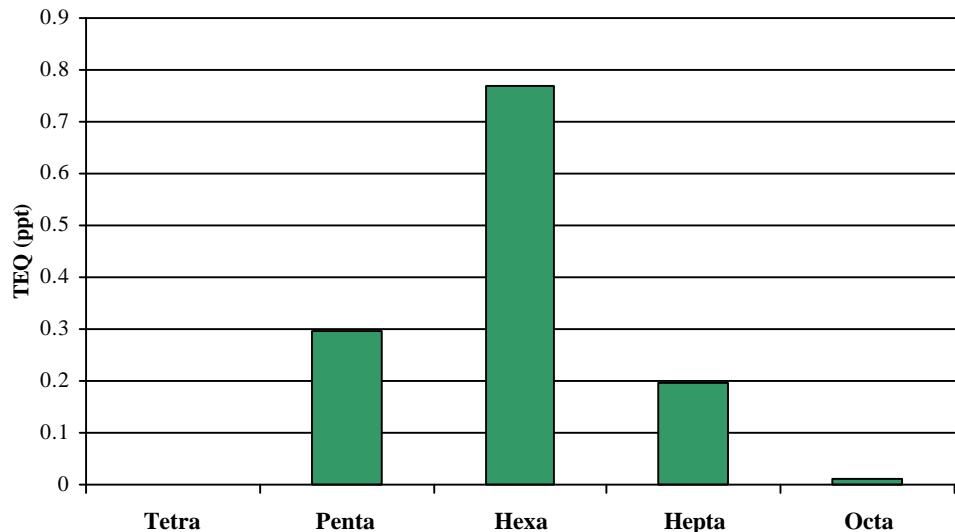
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

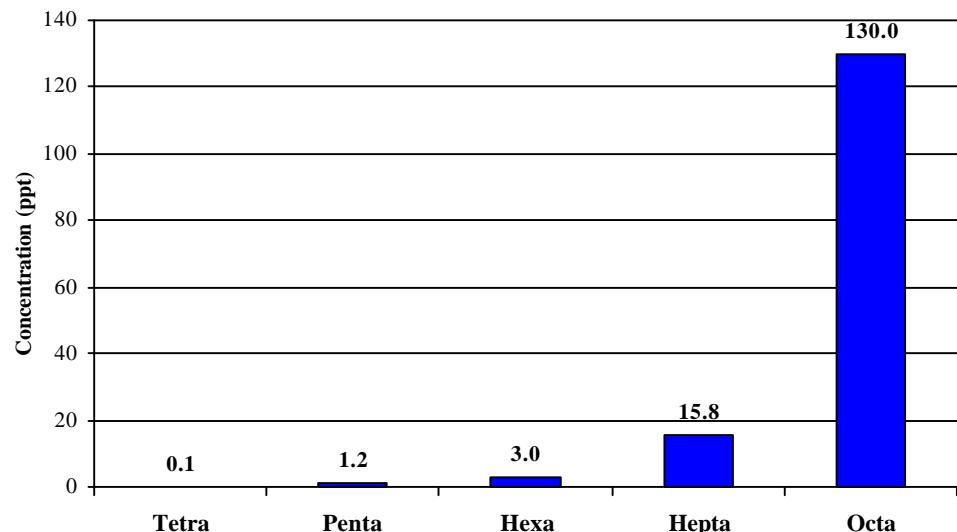


## Appendix B2. Homologue Profiles

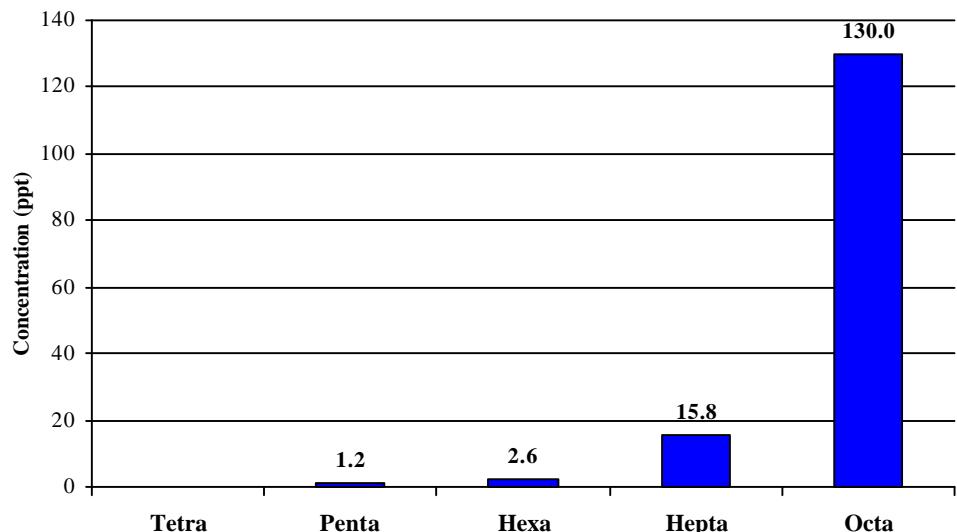
Sample 788

S7

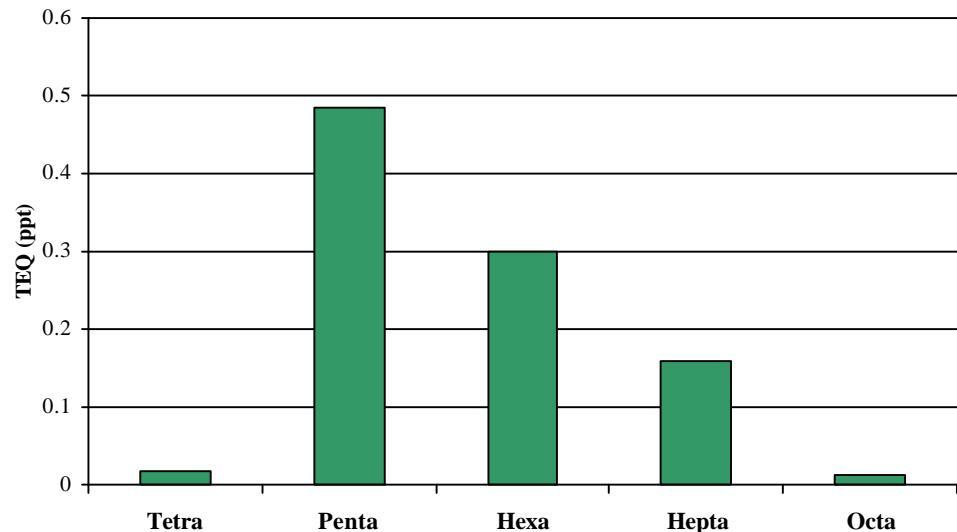
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



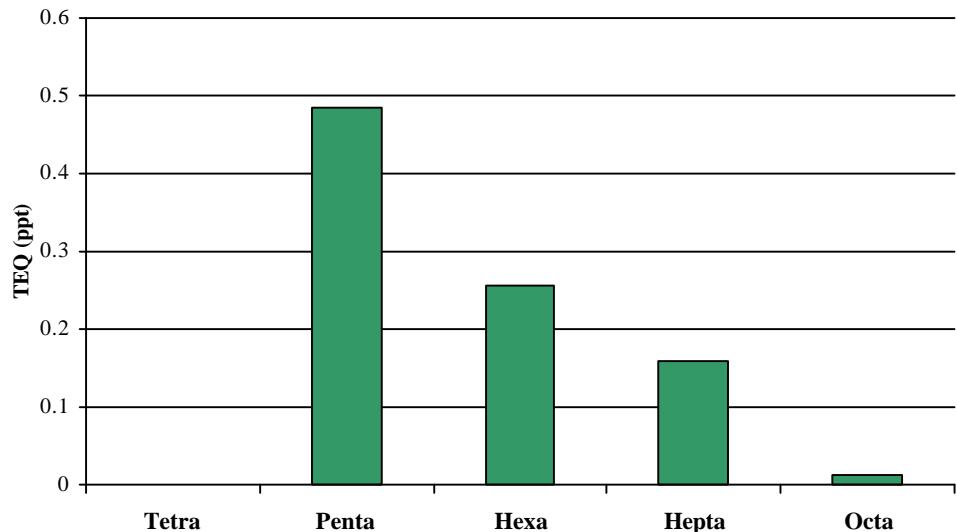
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

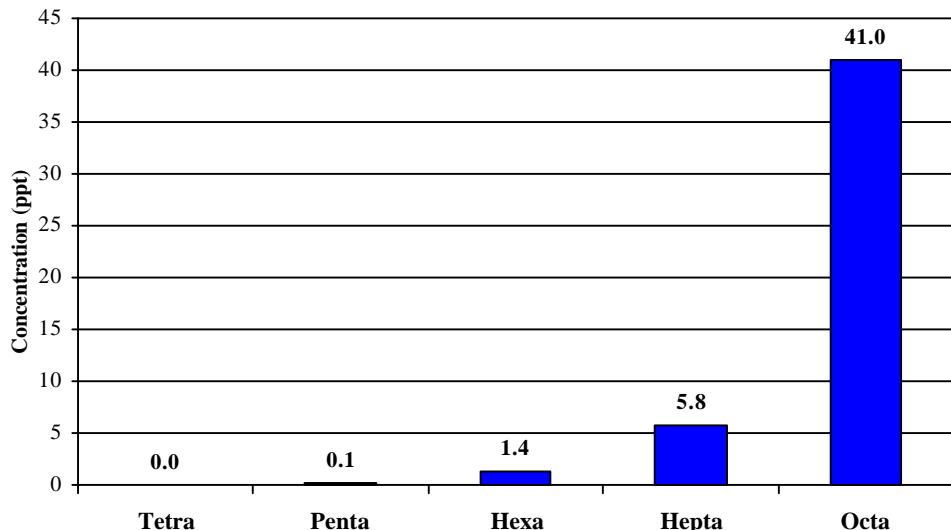


Sample 589

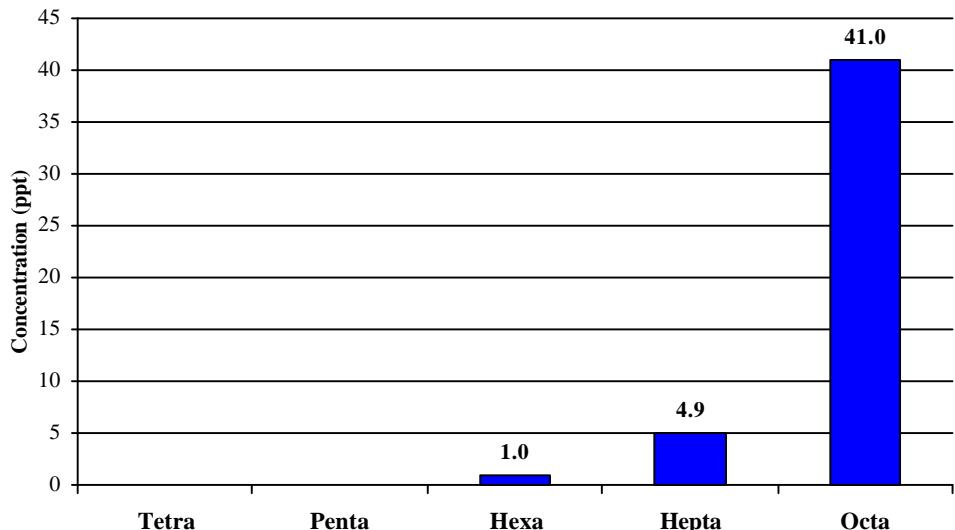
S8

**Full Concentrations: Homologue Profile**

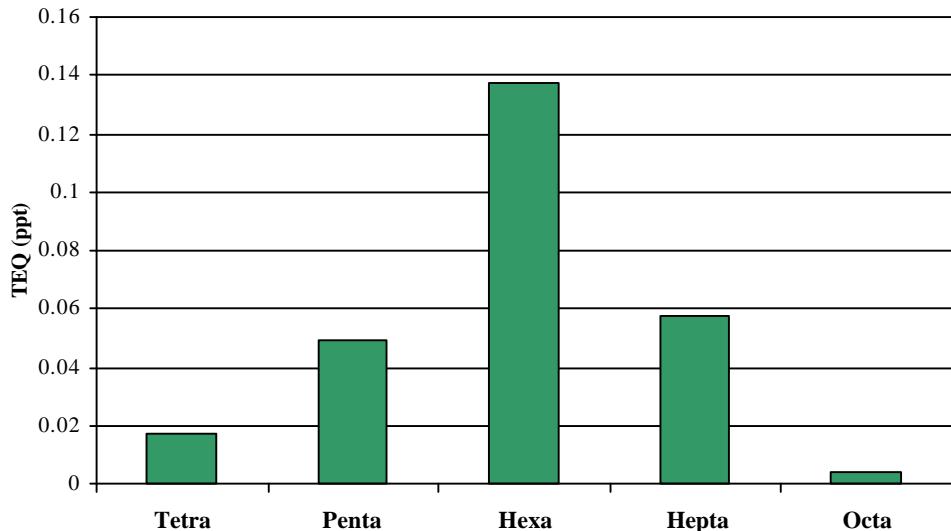
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Homologue Profile**

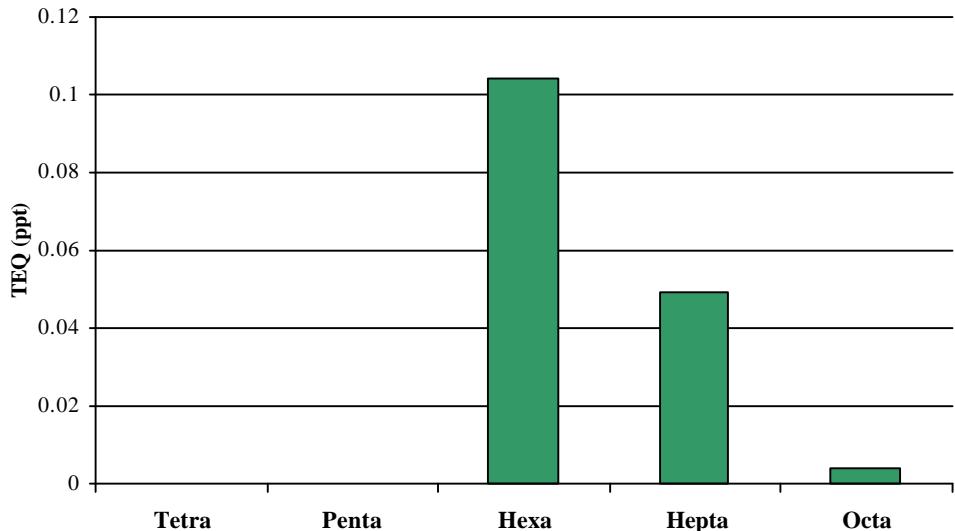
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Homologue Profile**

(Full Data Set With Proxies = 1/2 DL)

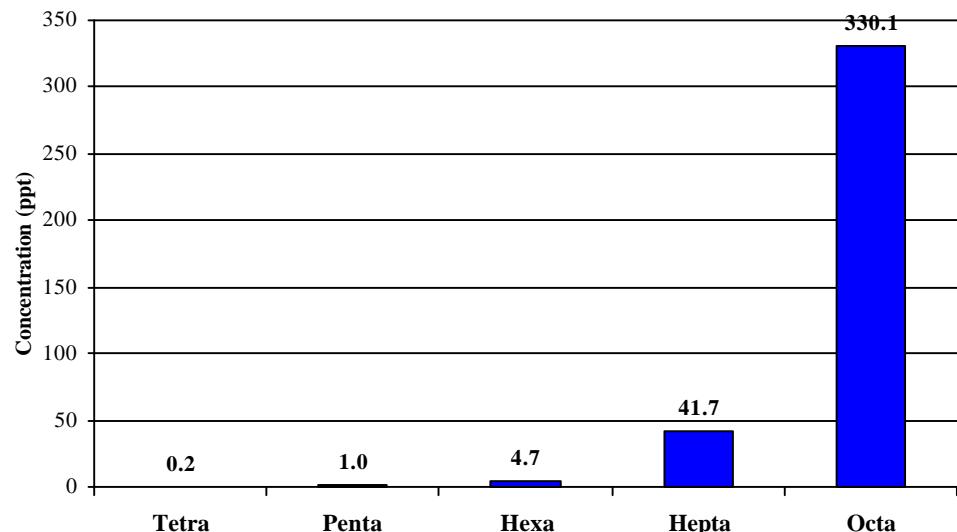
**Quantitative TEQs: Homologue Profile**

(Quantitative Data Set; Values Greater Than QL)

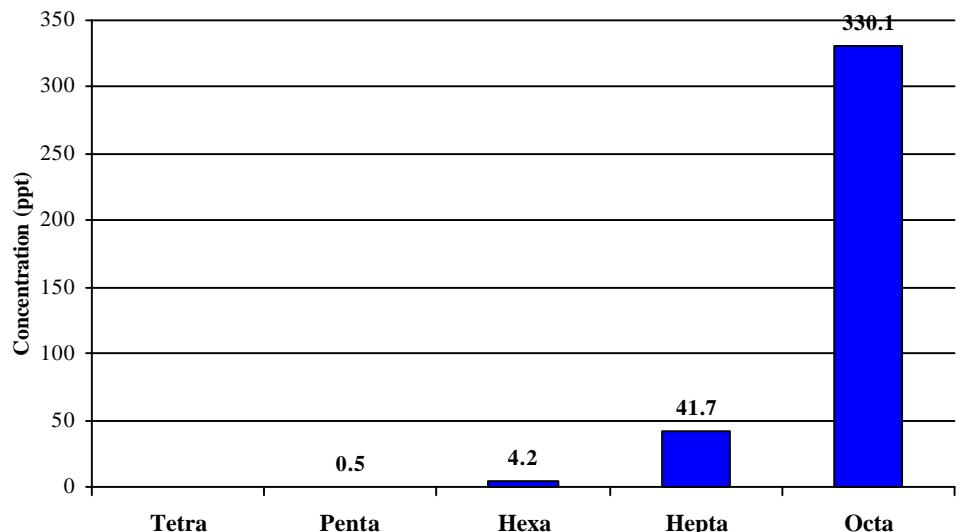


**Appendix B2. Homologue Profiles***Sample 249**S9*

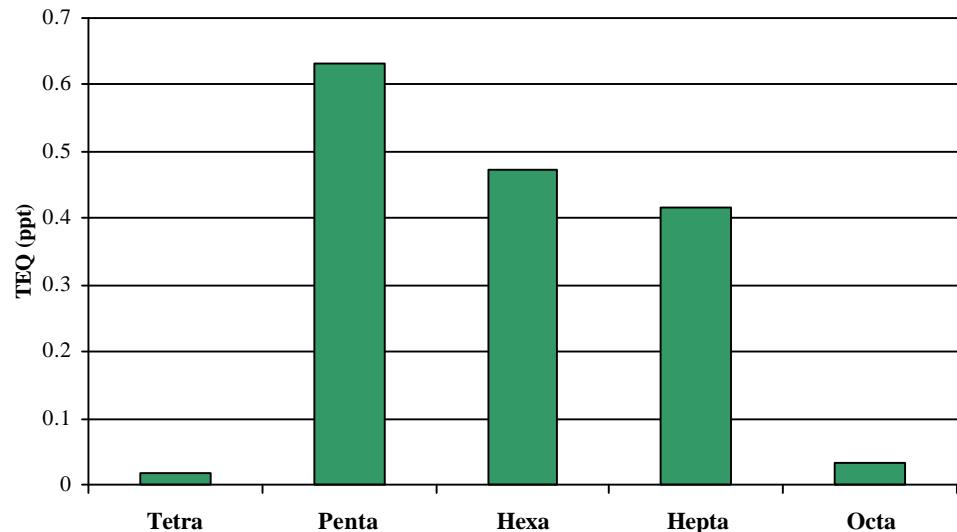
**Full Concentrations: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)



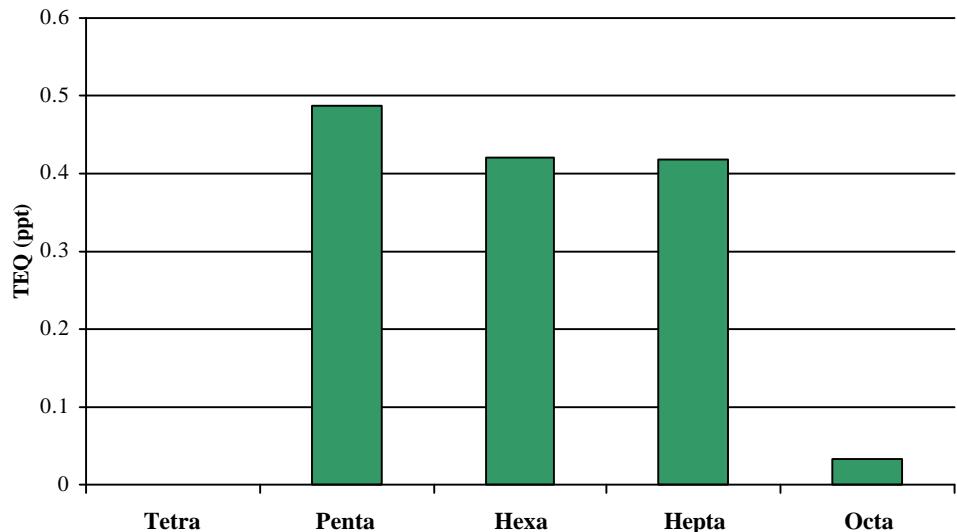
**Quantitative Concentrations: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)

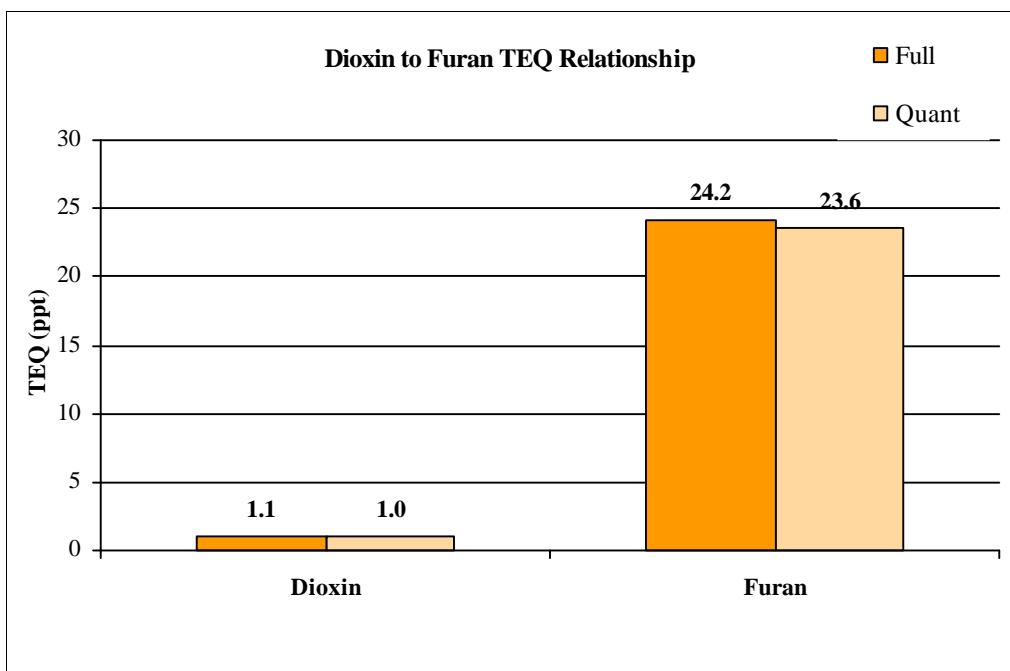
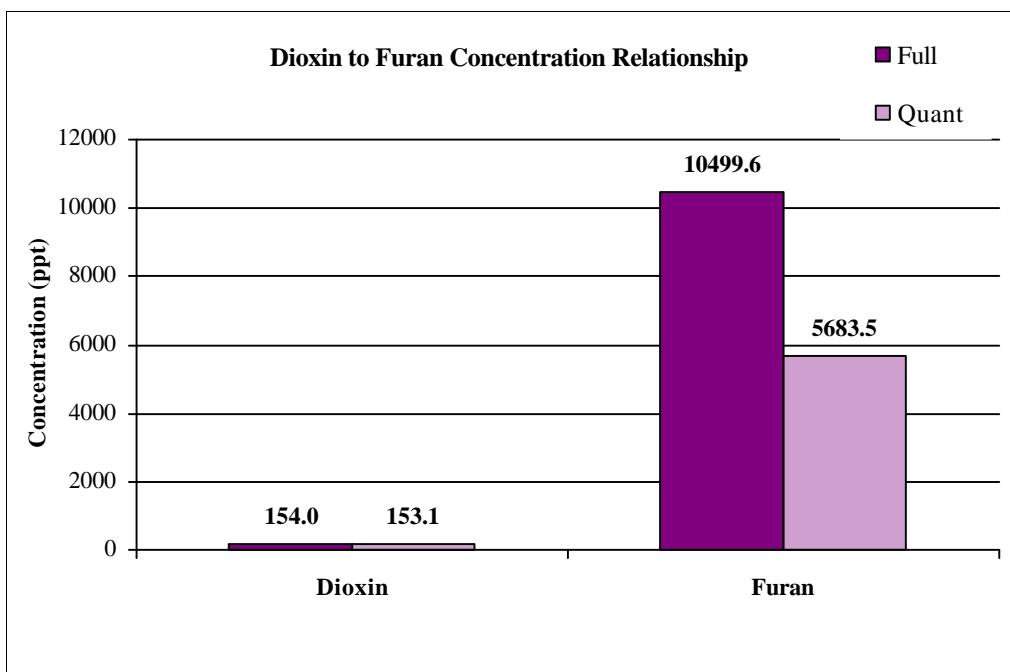


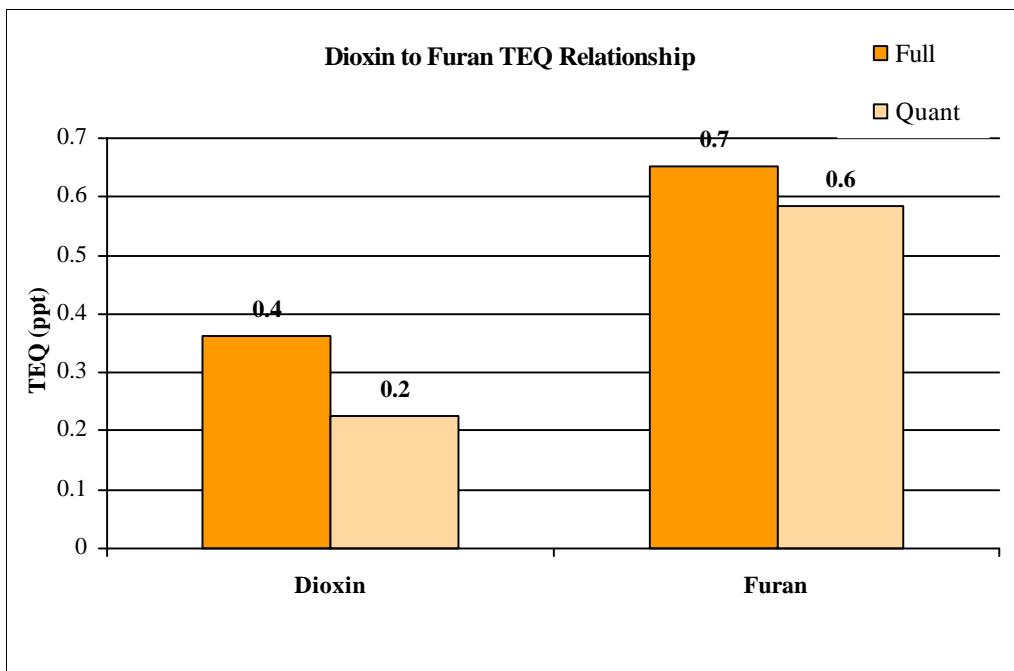
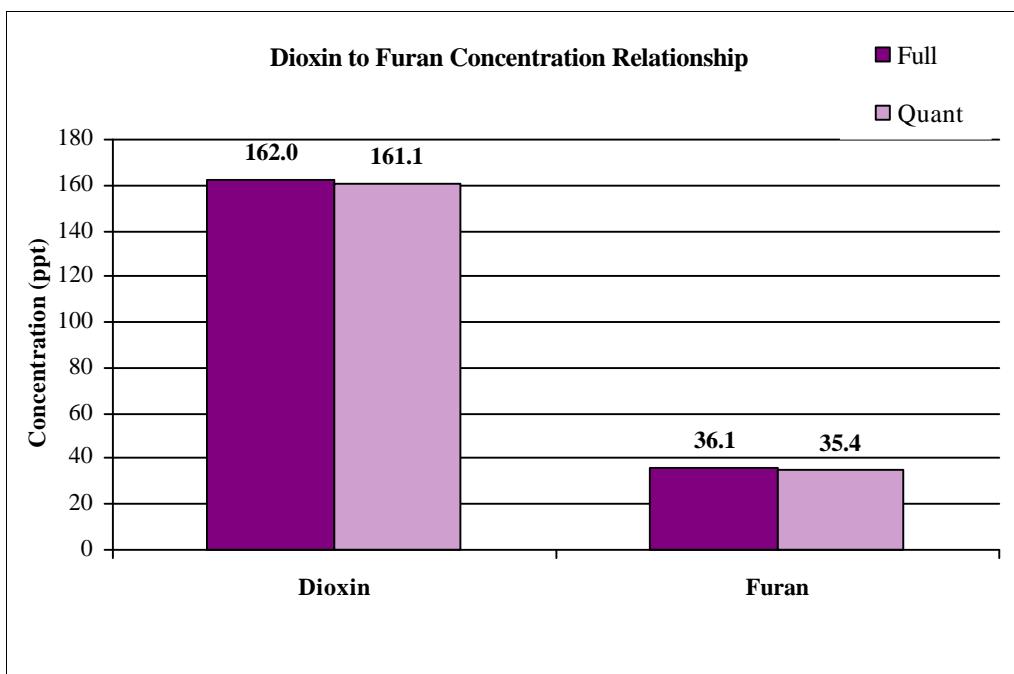
**Full TEQs: Homologue Profile**  
(Full Data Set With Proxies = 1/2 DL)

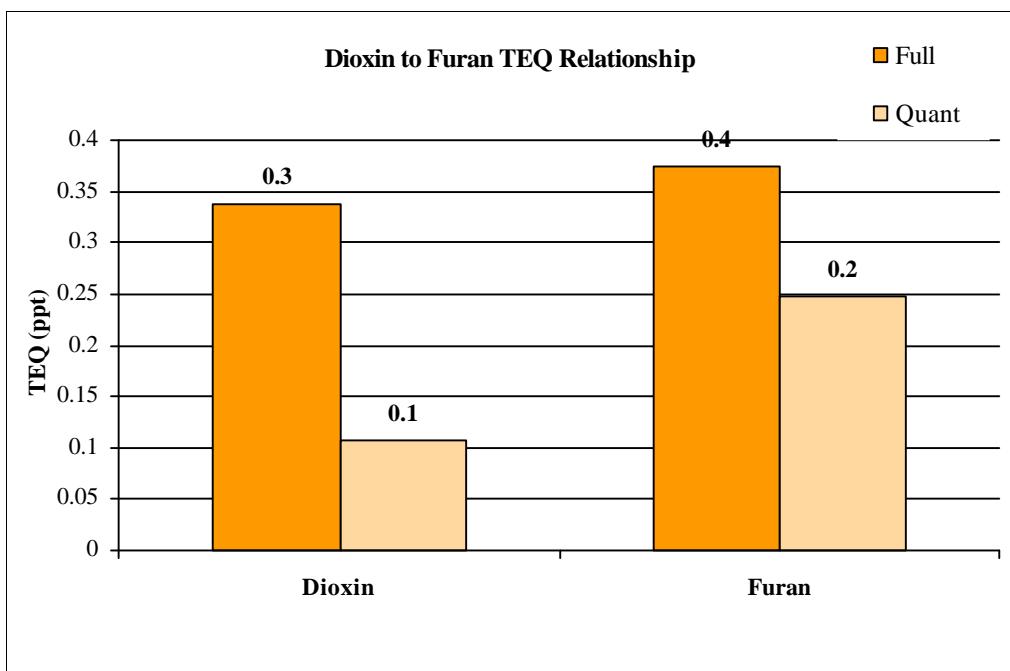
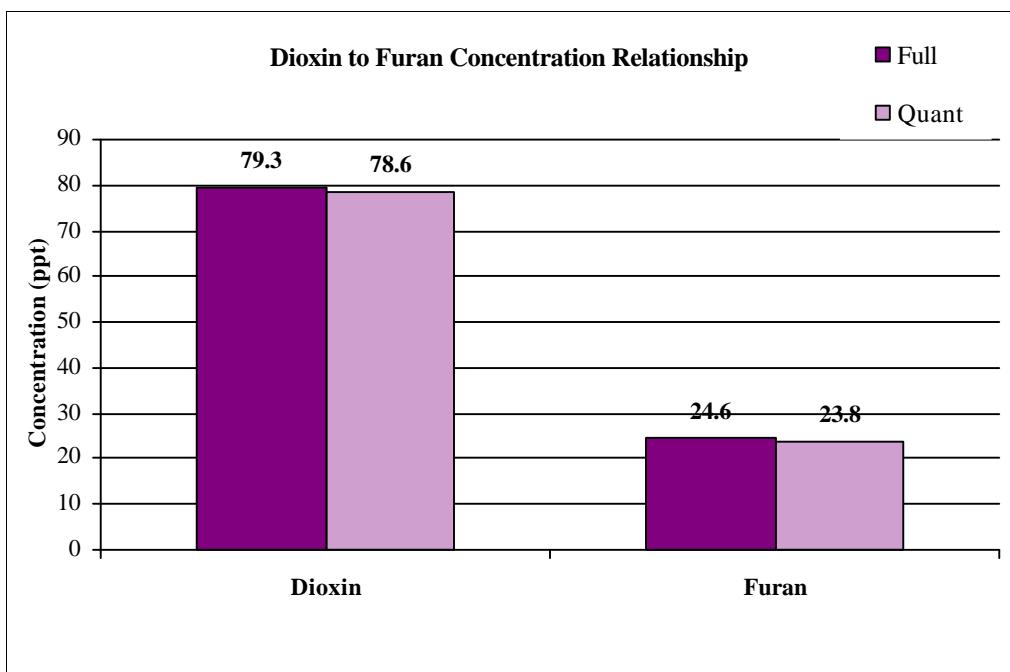


**Quantitative TEQs: Homologue Profile**  
(Quantitative Data Set; Values Greater Than QL)



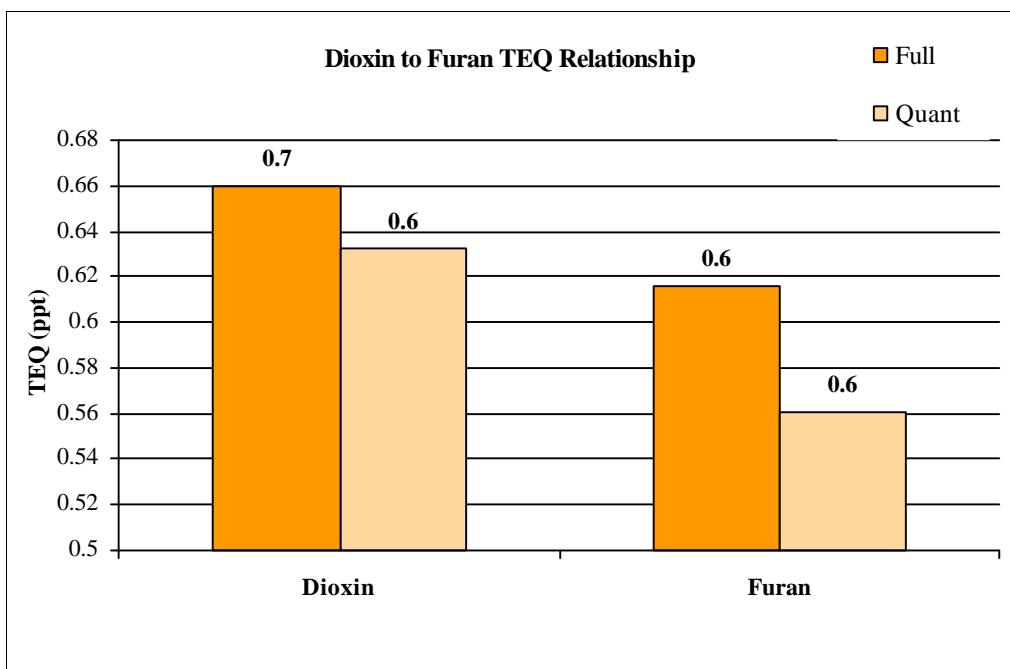
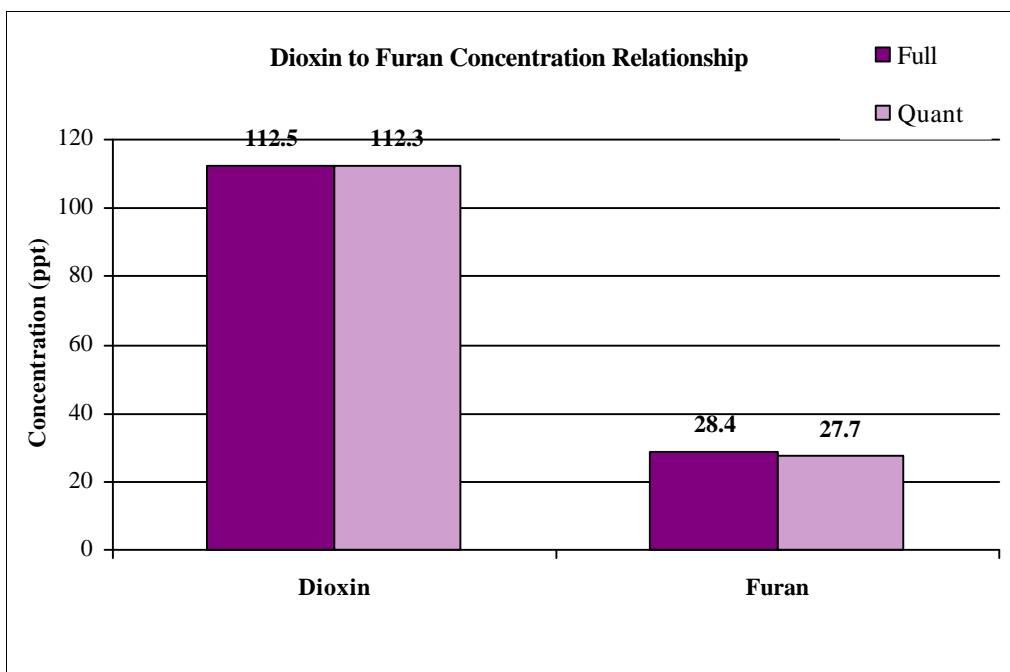
*Sample 463**S1*

*Sample 318**S11*

*Sample 567**SI2*

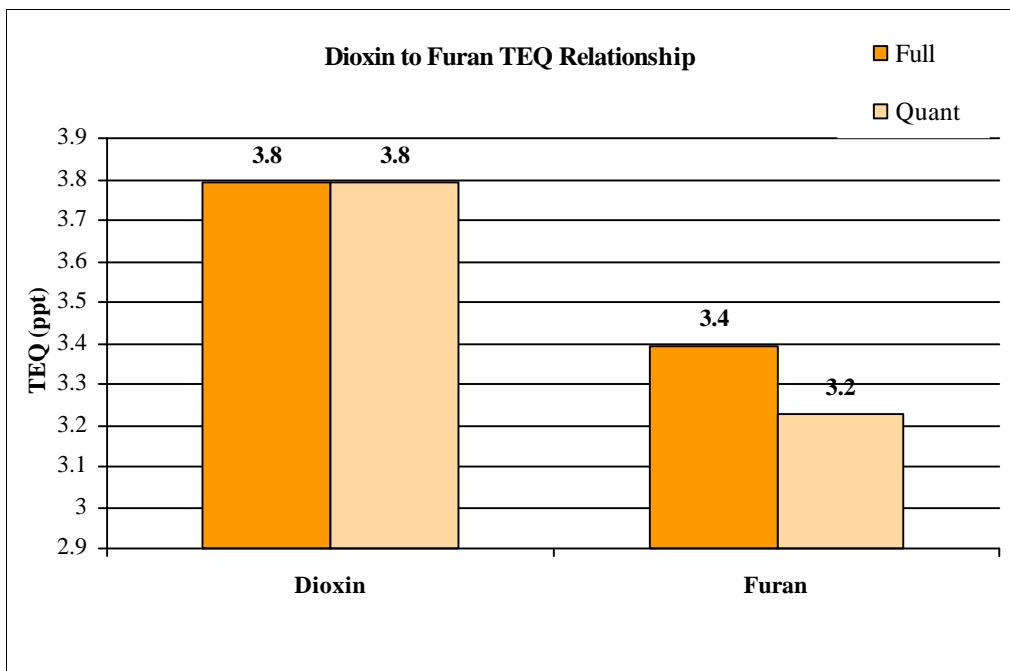
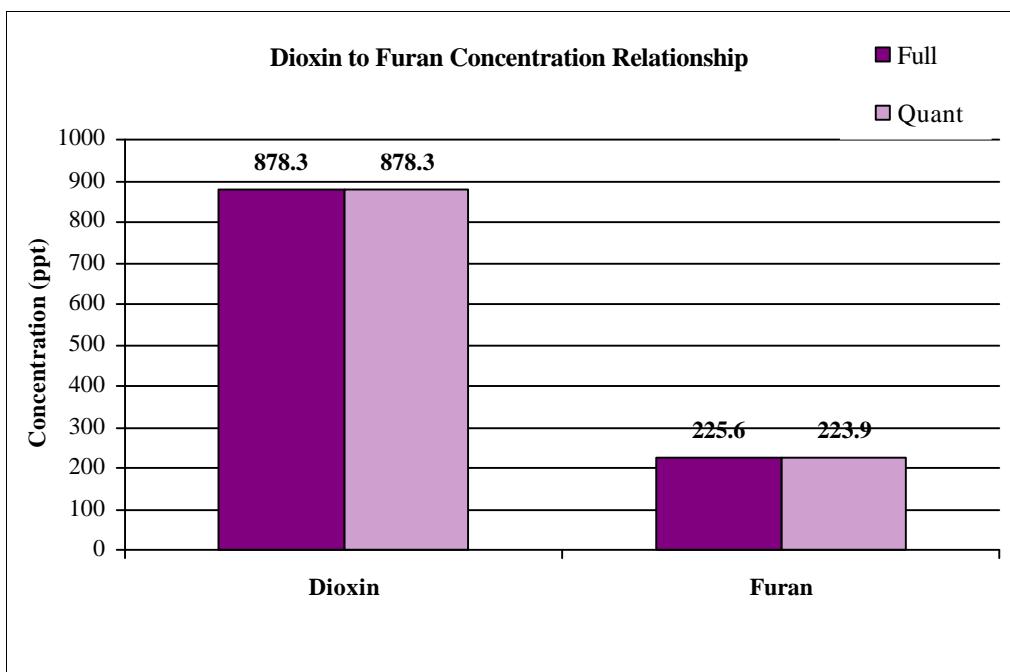
Sample 187

S19



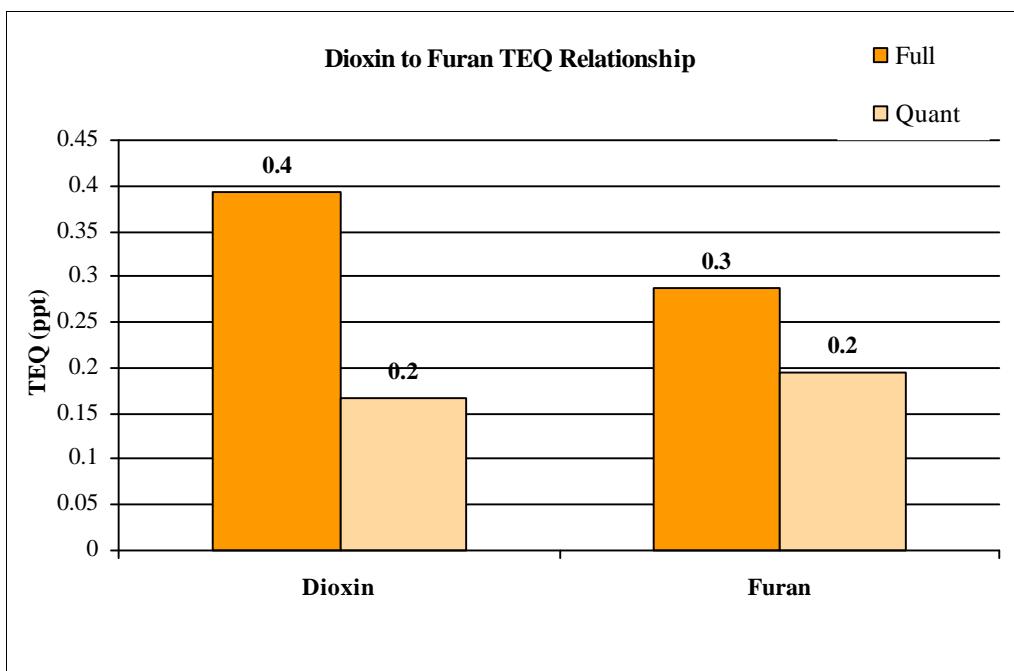
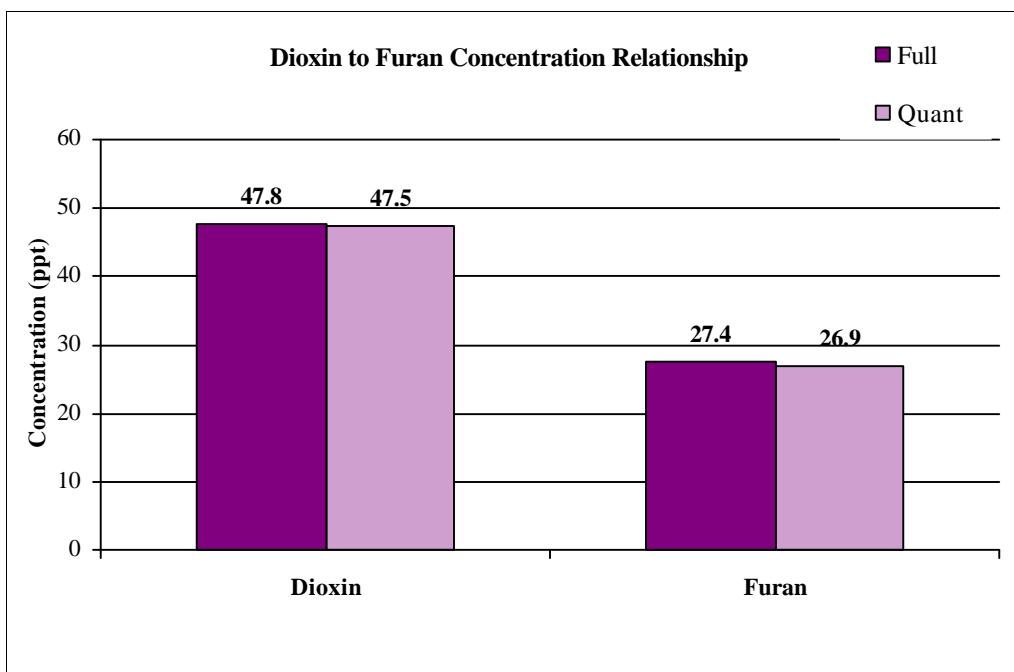
*Sample 429*

S2



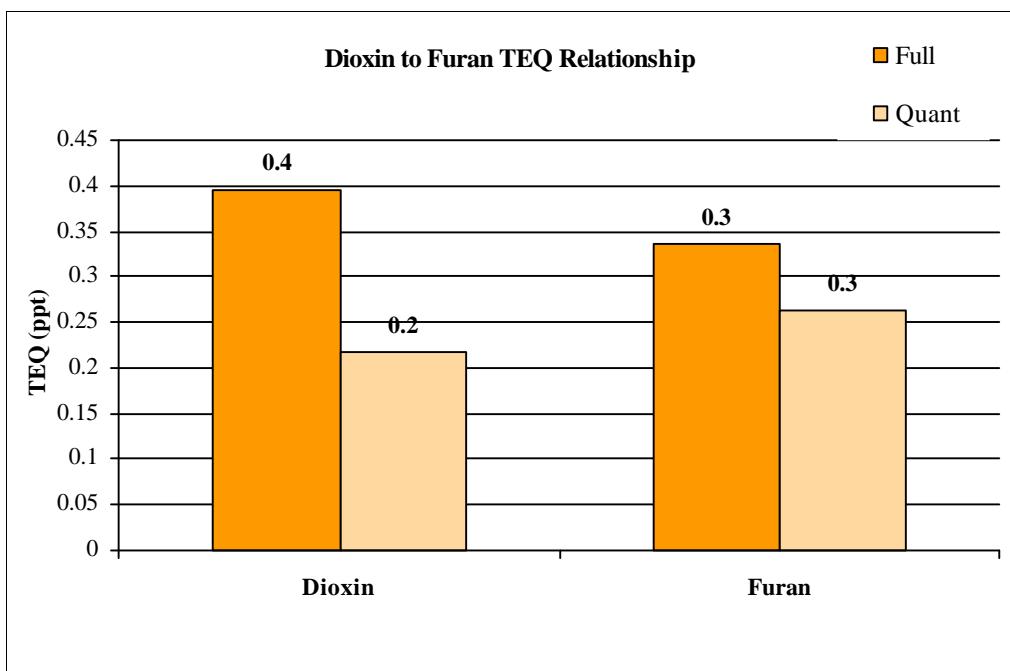
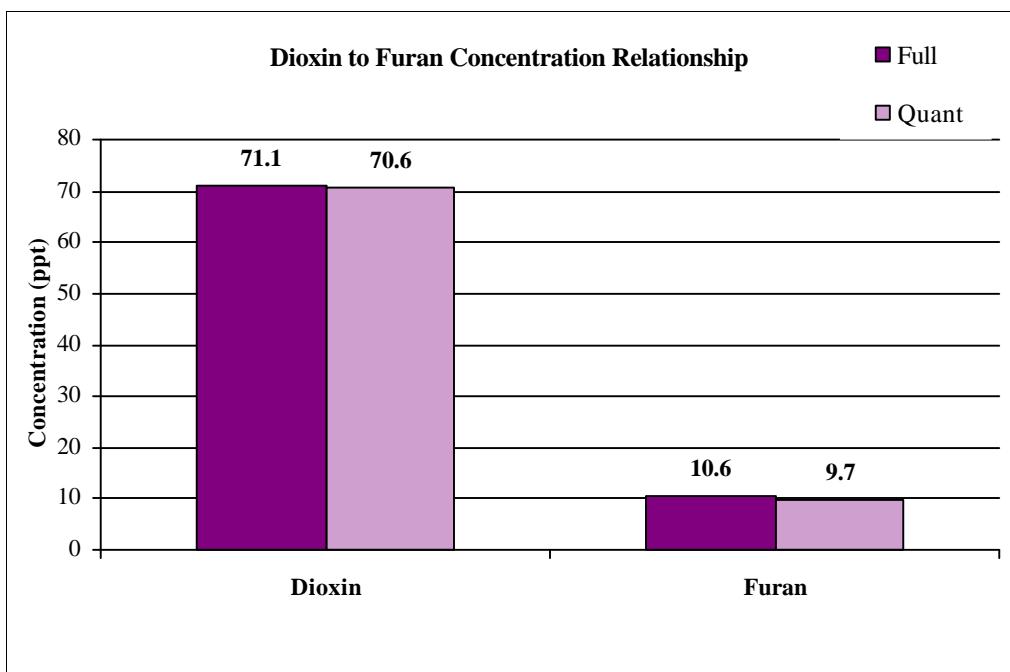
Sample 291

S20



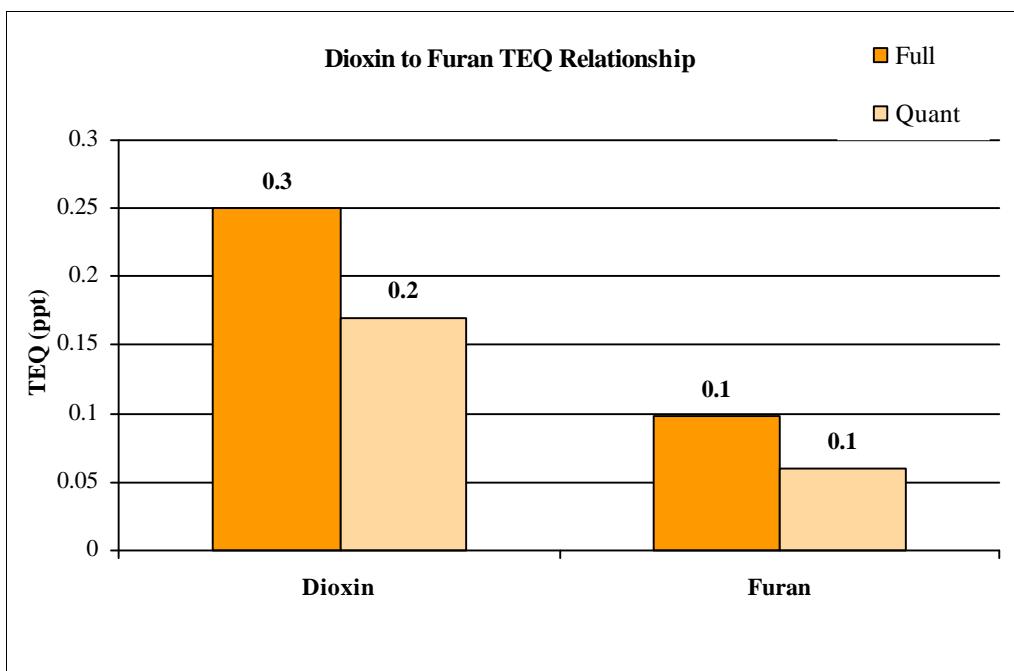
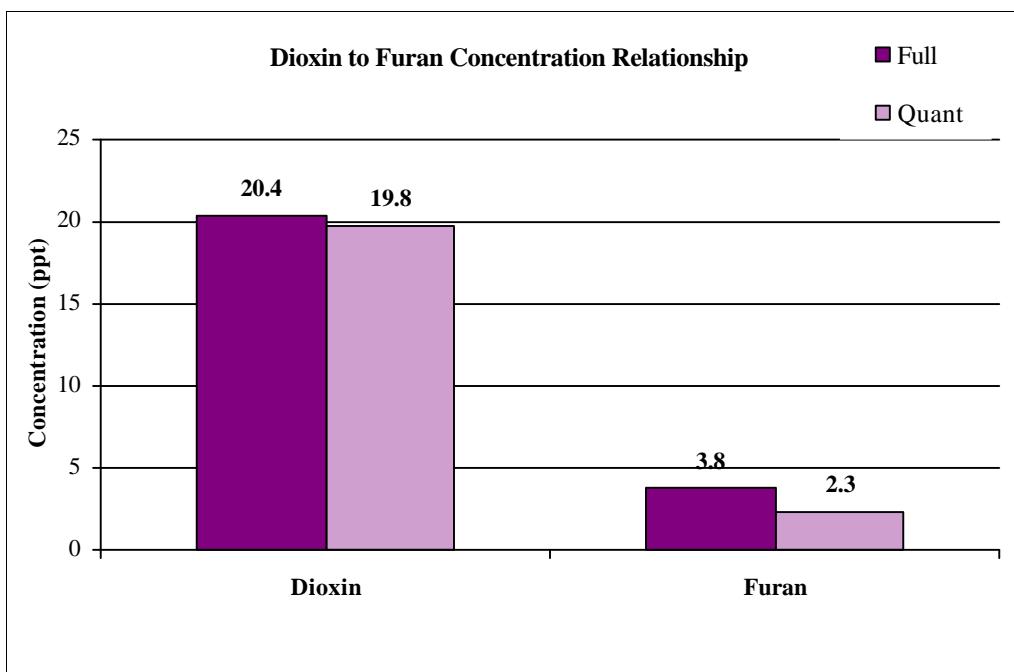
Sample 644

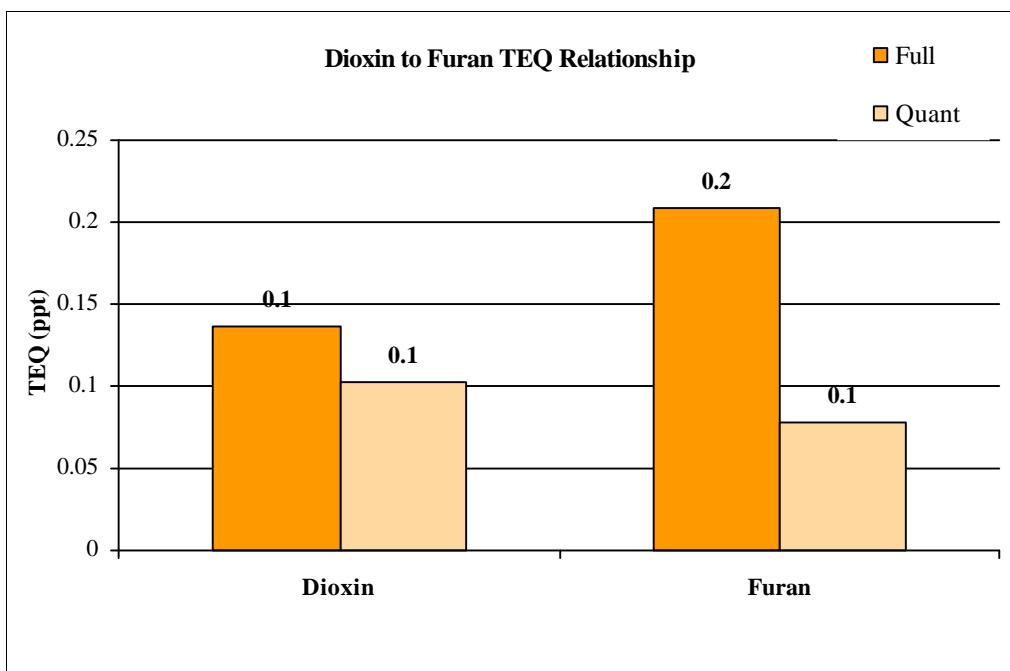
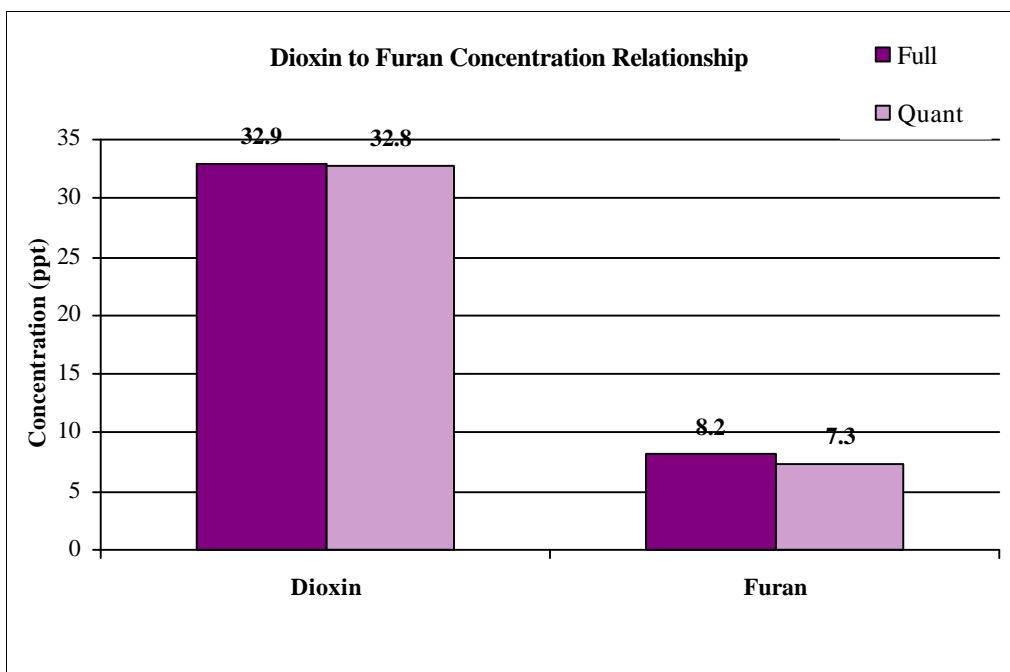
S22



Sample 521

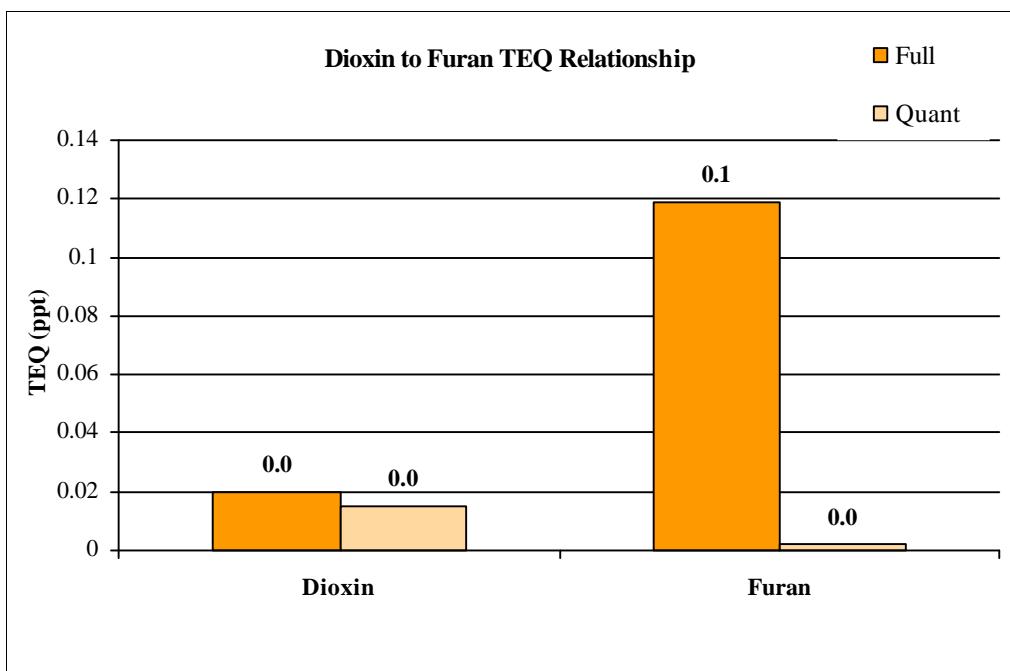
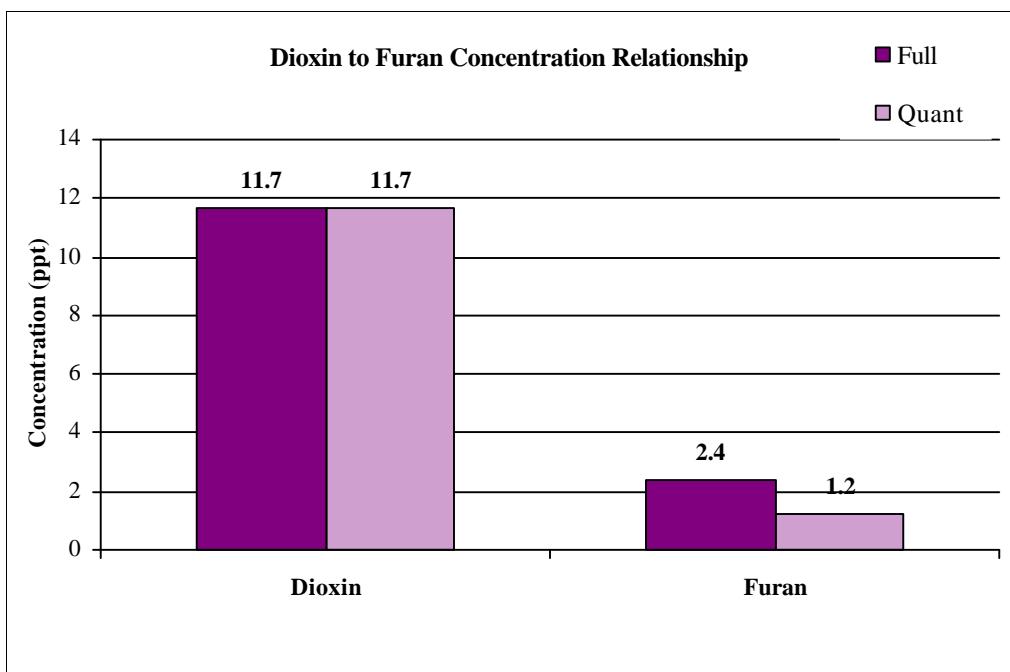
S23



*Sample 385**S24*

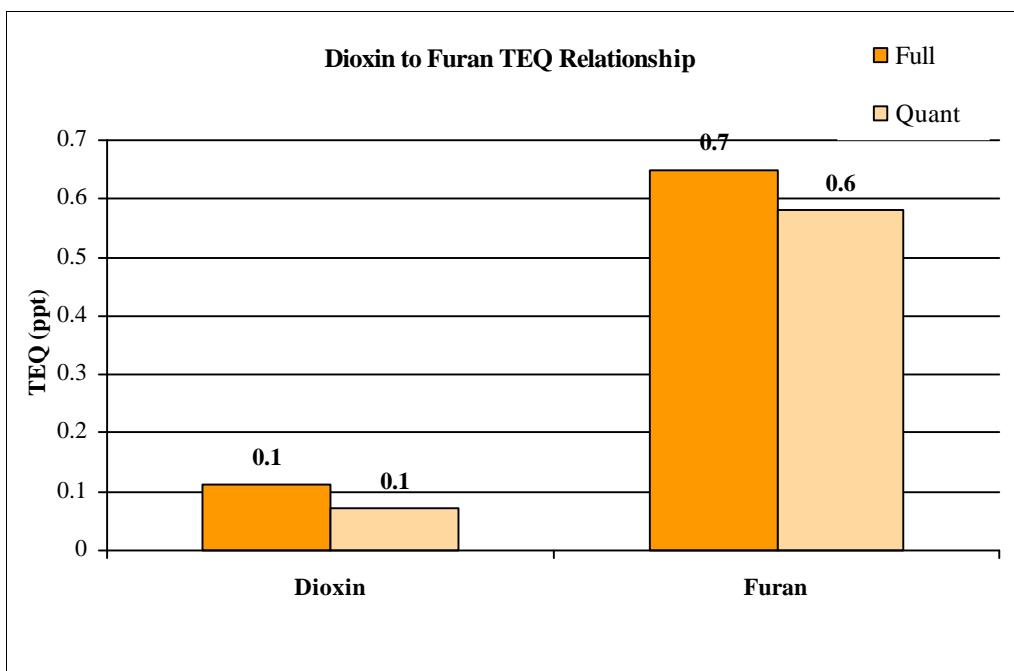
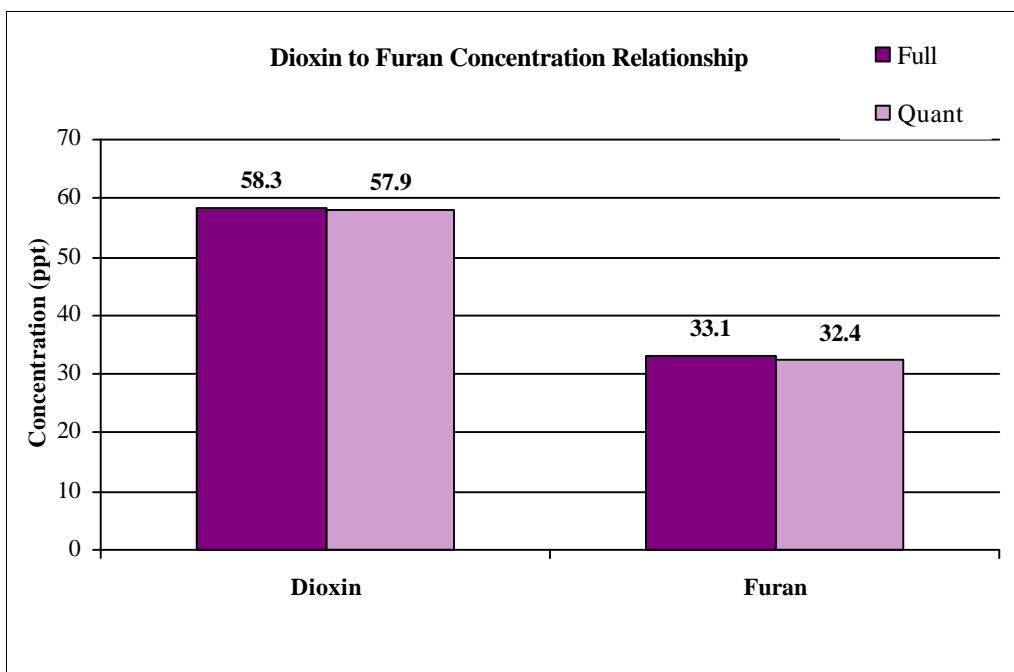
Sample 847

S25



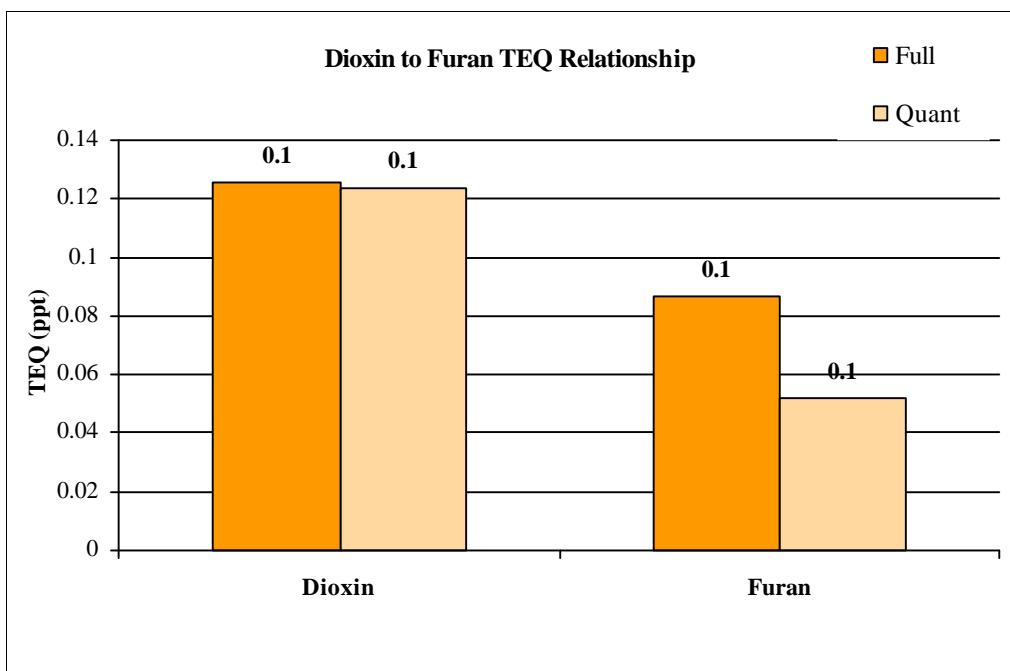
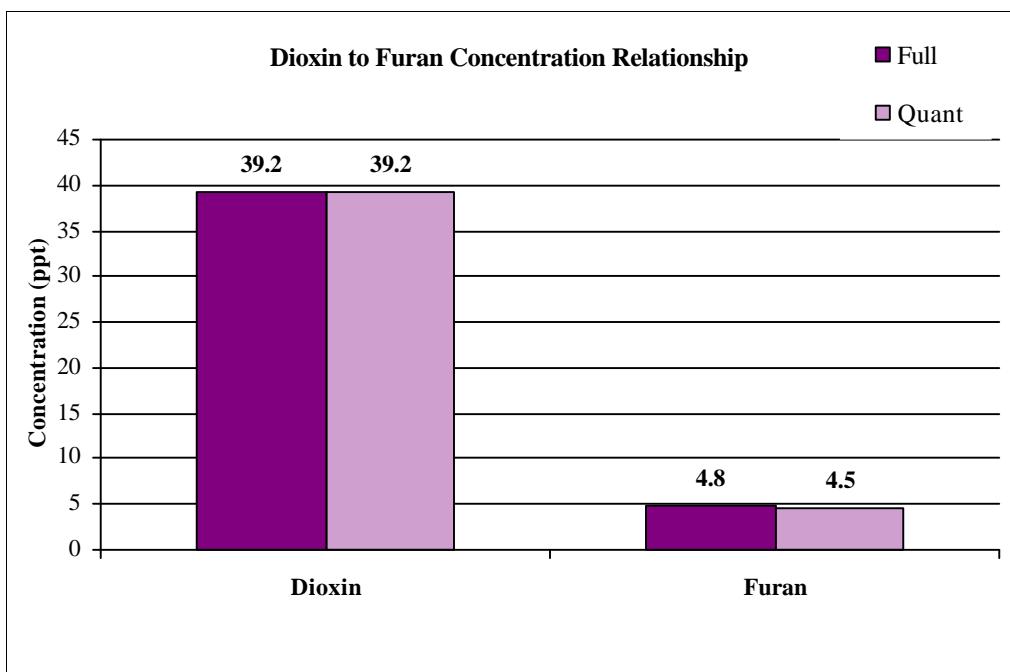
Sample 547

S26



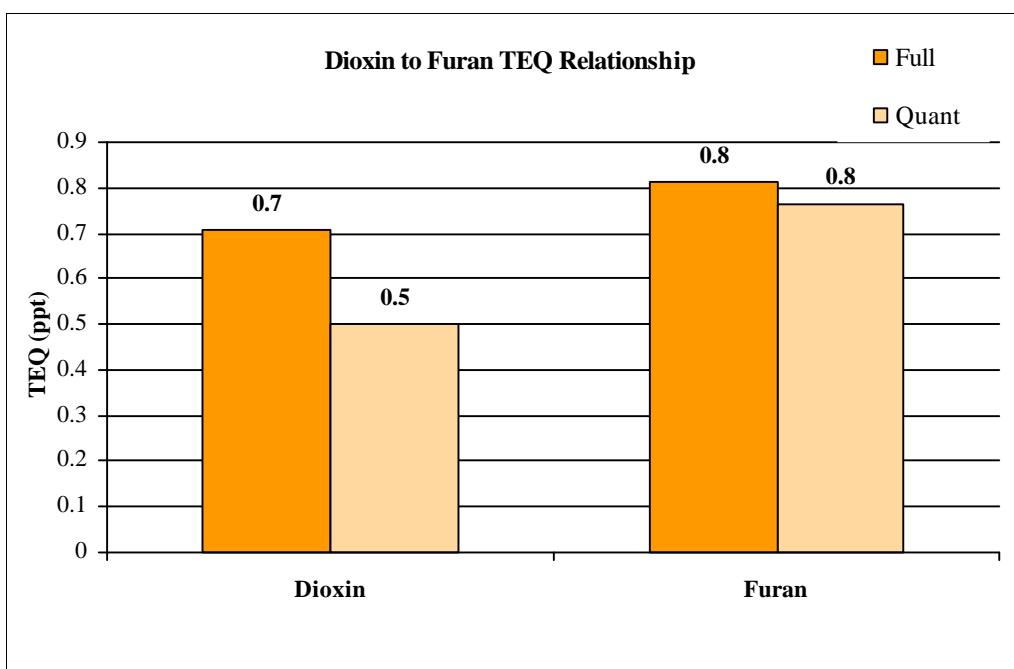
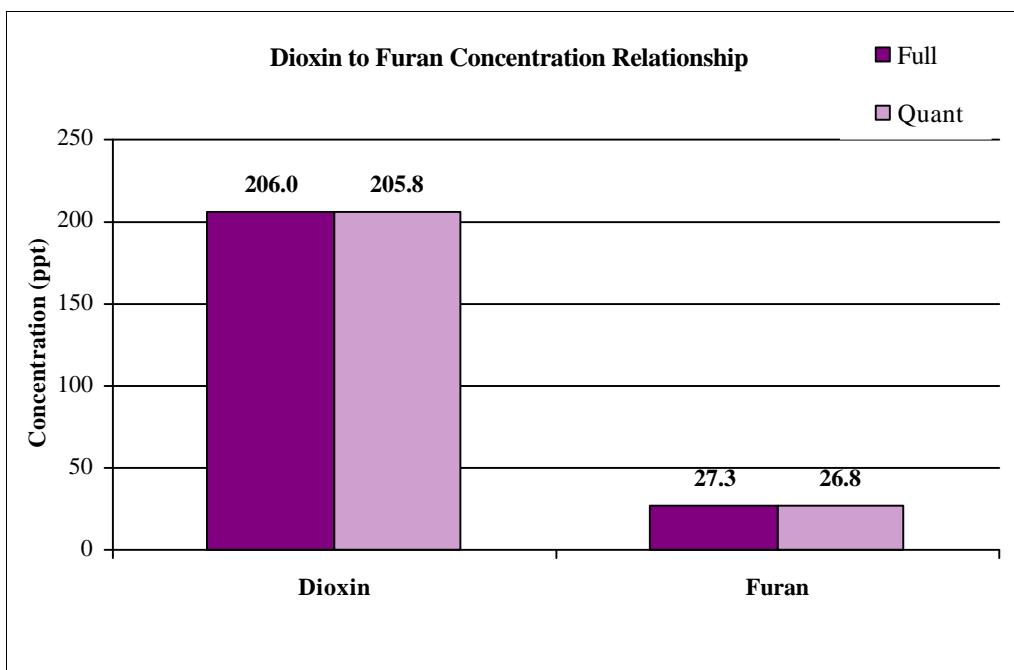
Sample 768

S27



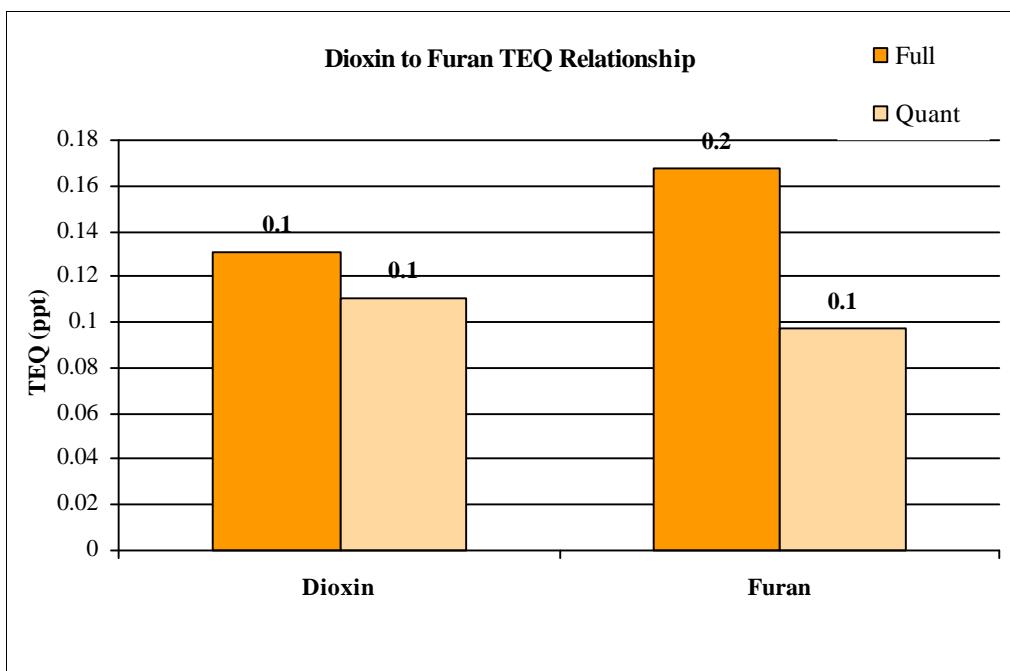
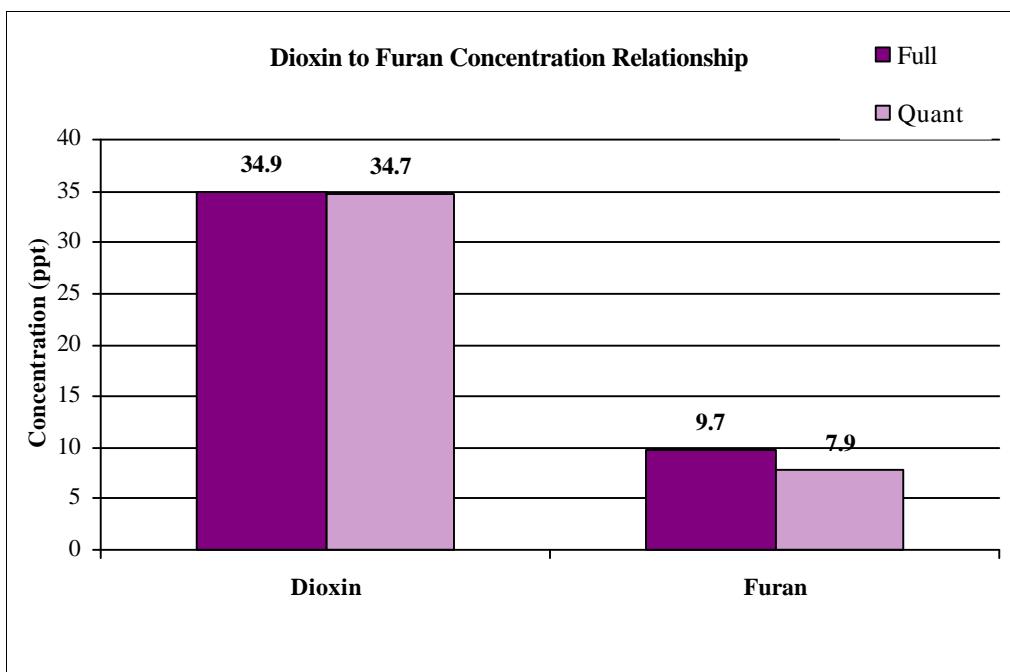
Sample 264

S28



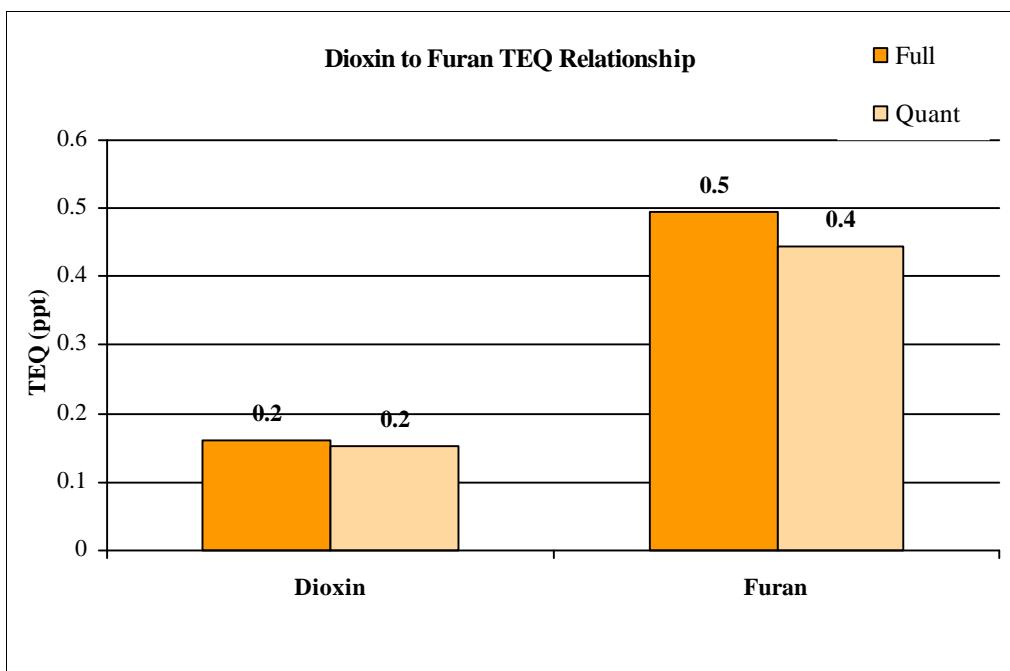
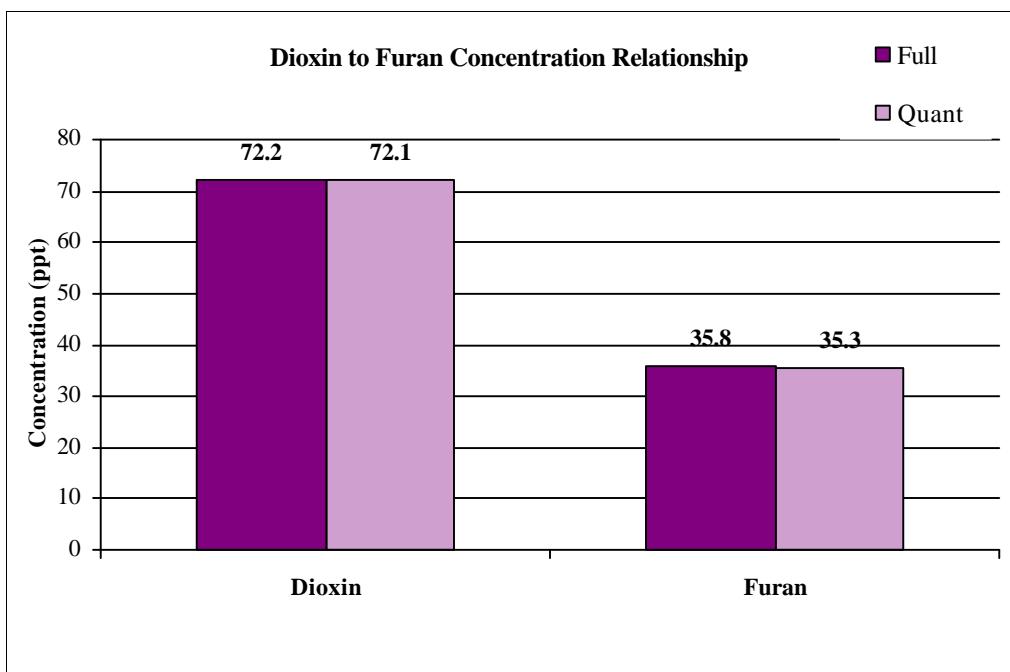
Sample 443

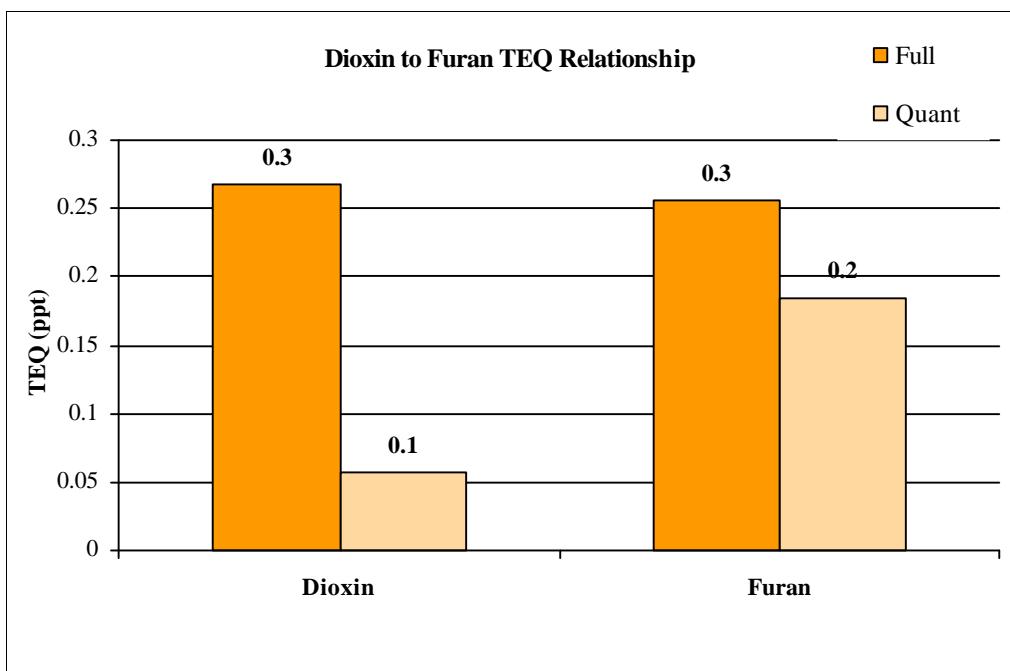
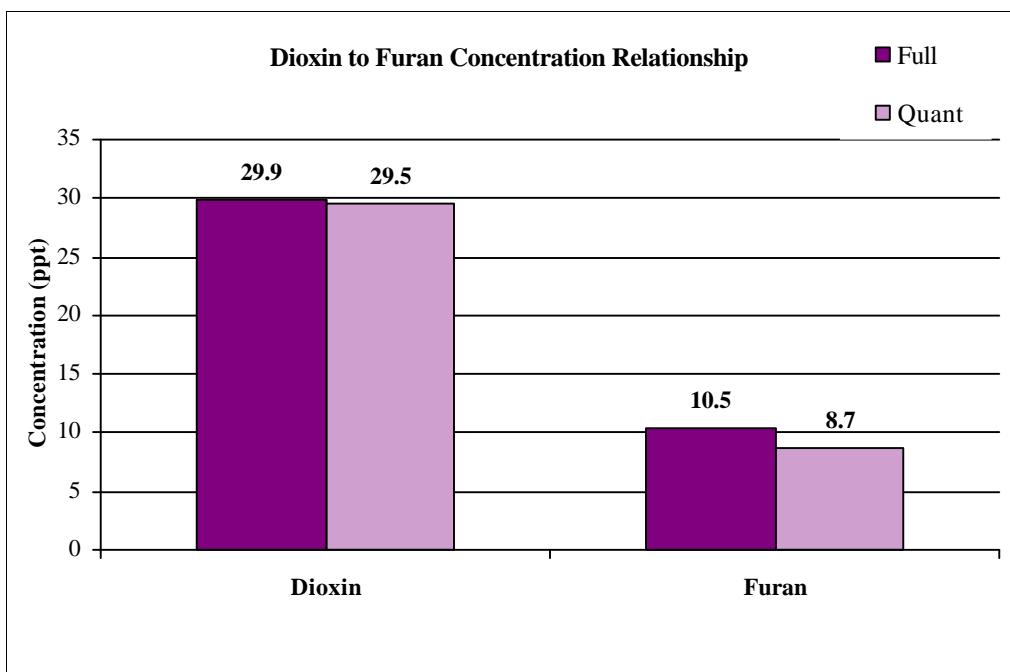
S29

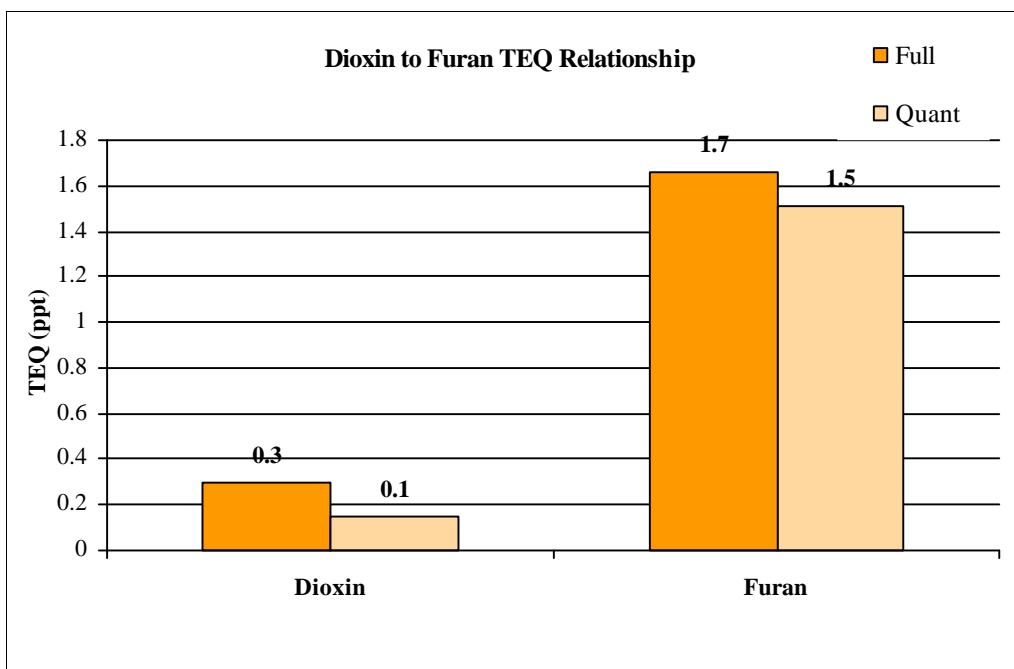
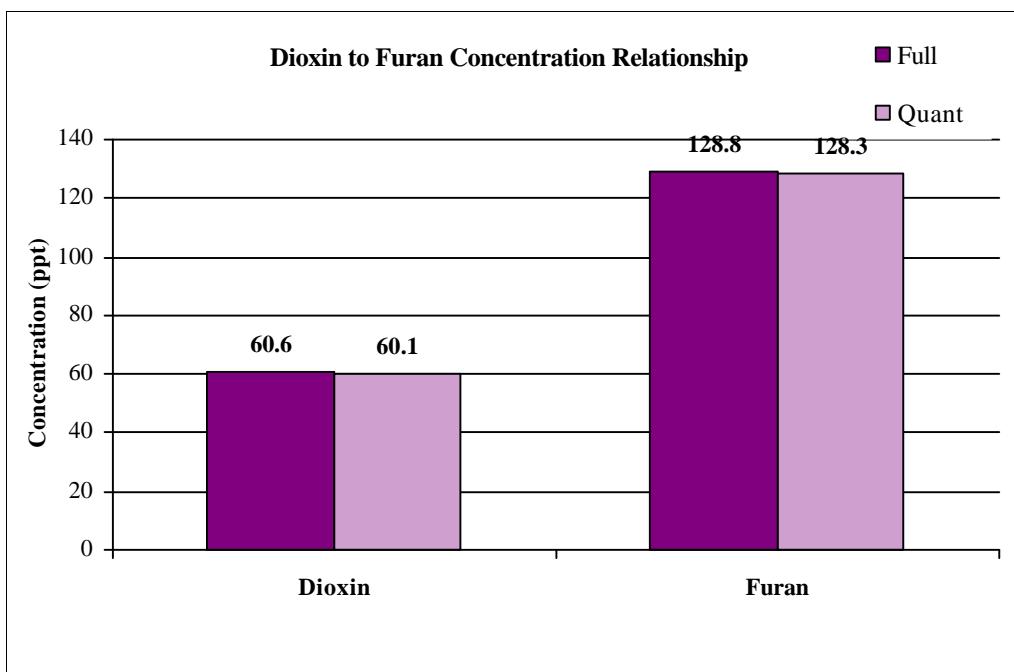


*Sample 641*

S3

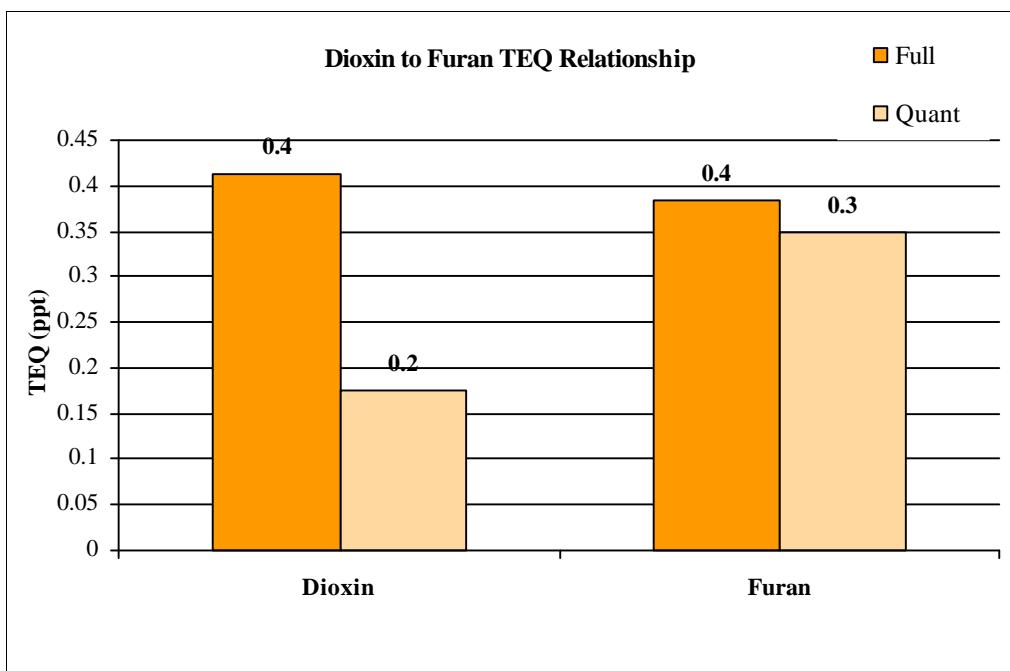
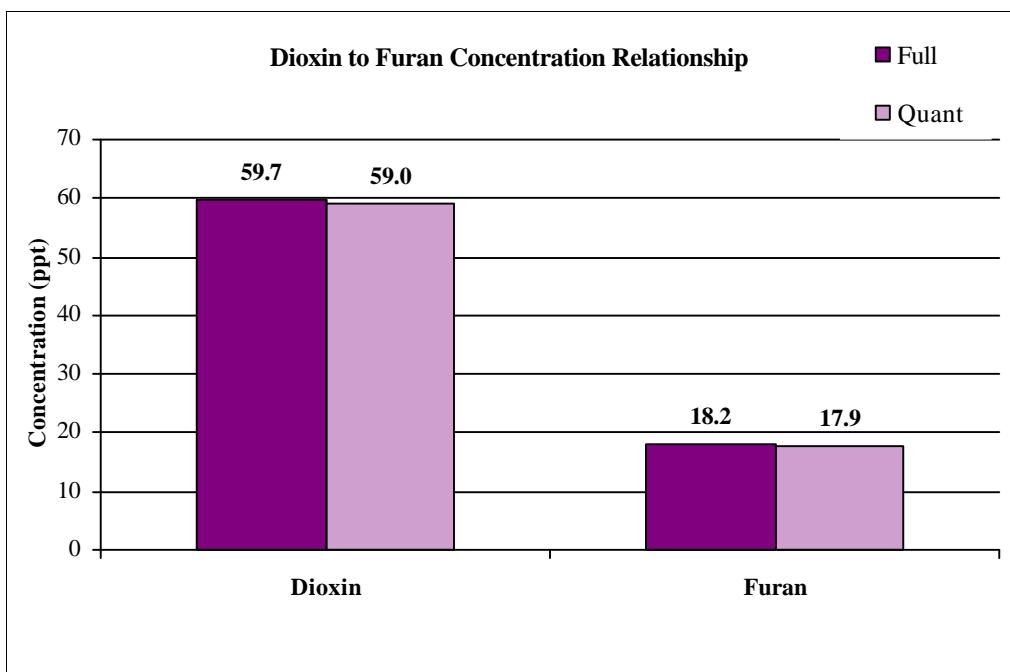


*Sample 736**S30*

*Sample 616**S31*

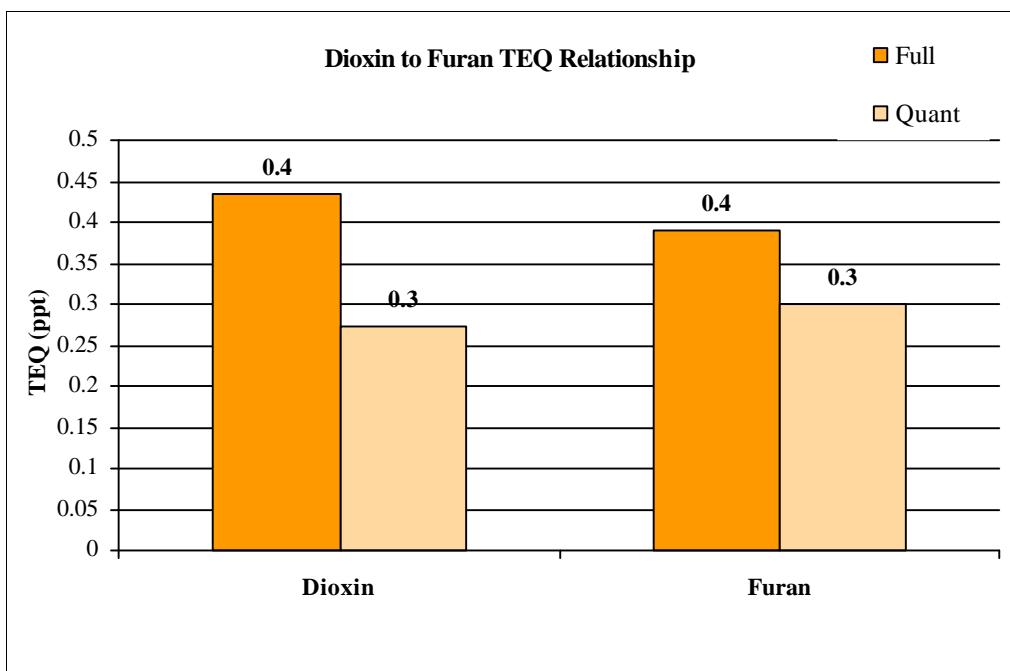
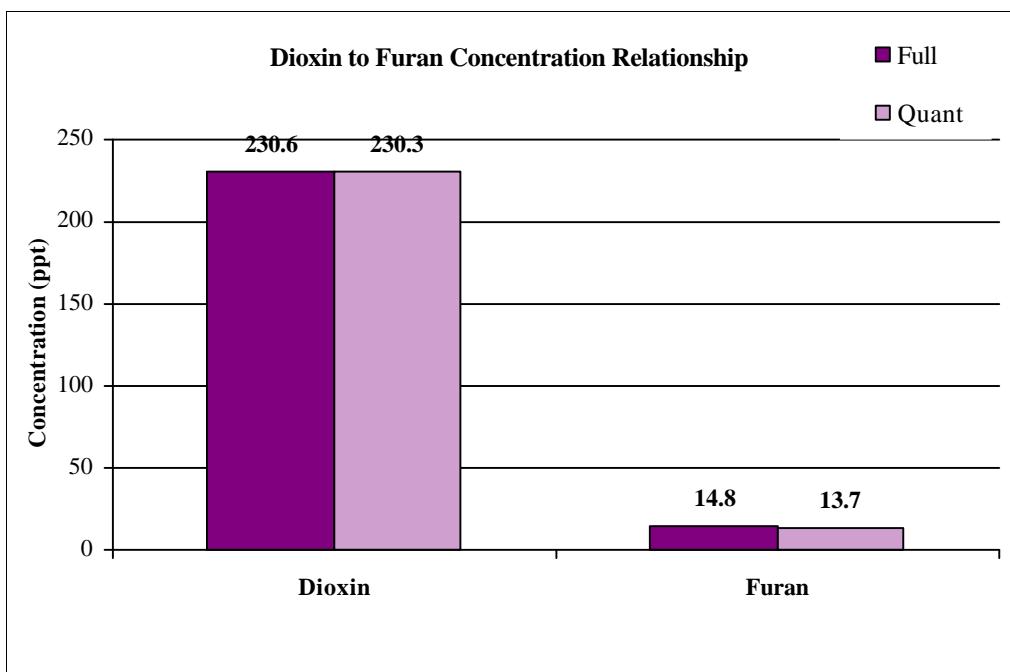
*Sample 945*

S32



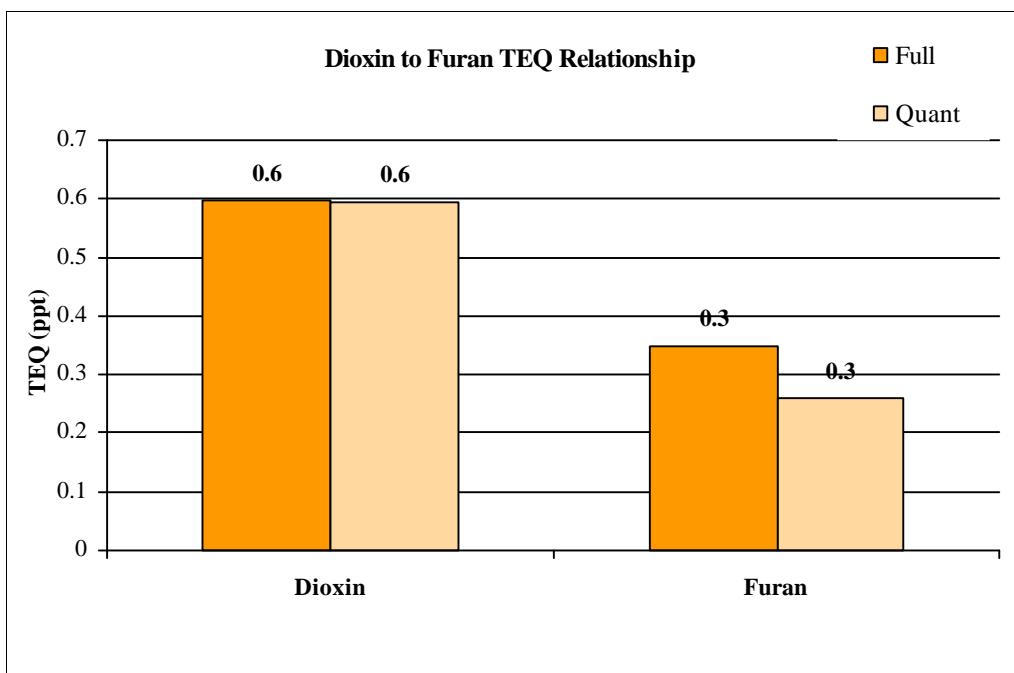
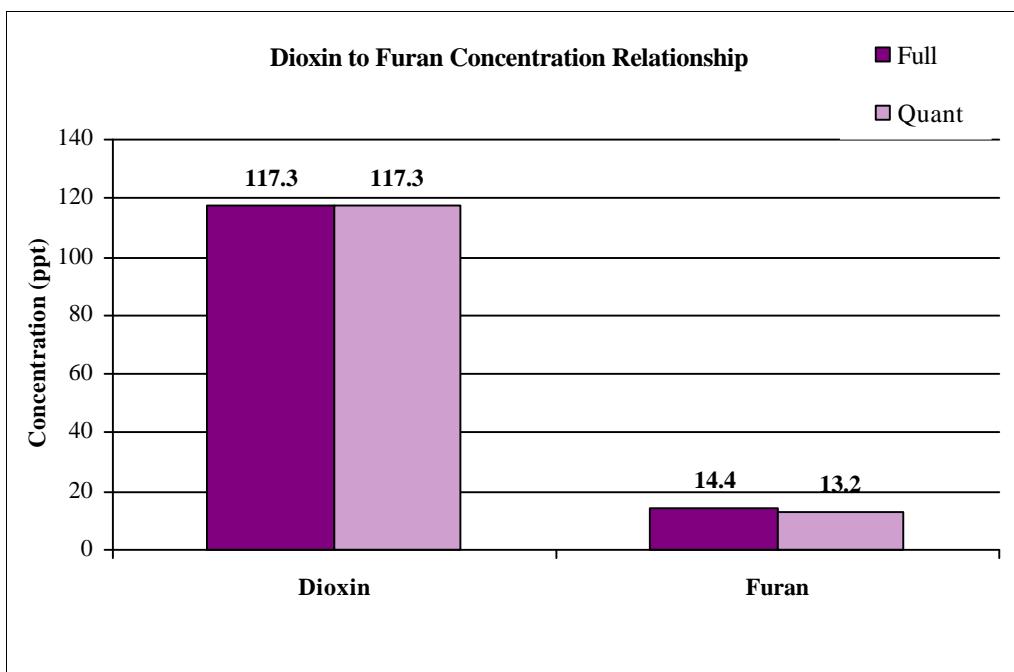
Sample 564

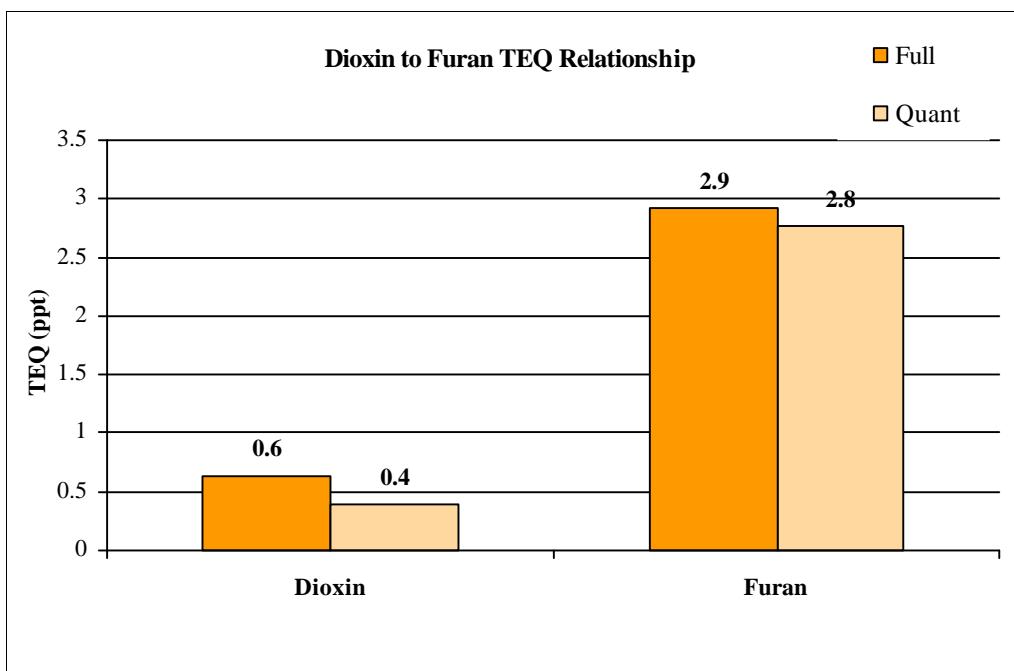
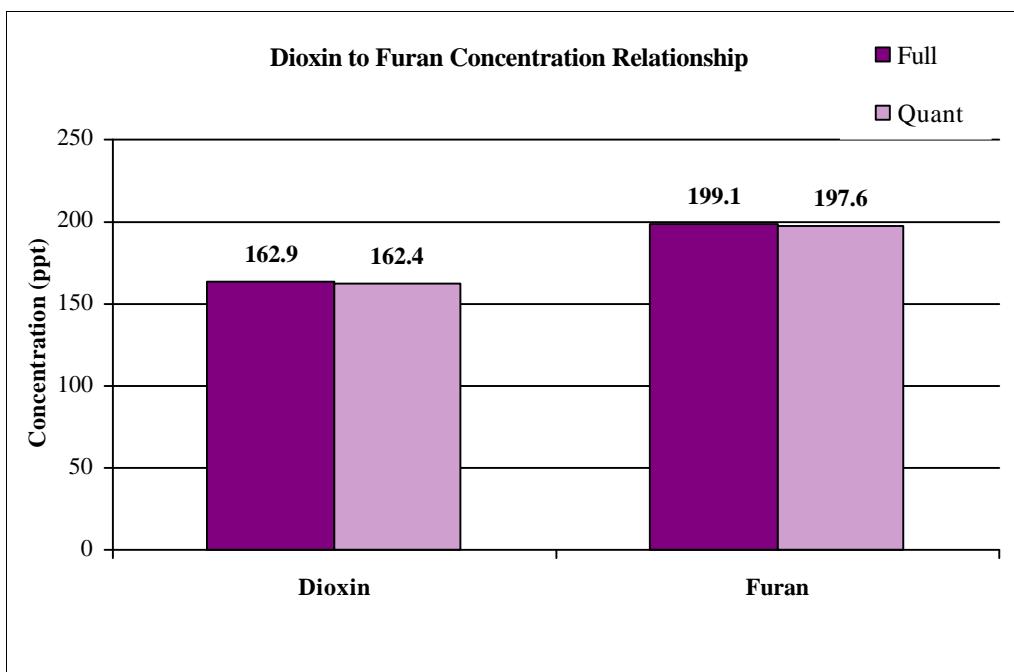
S33

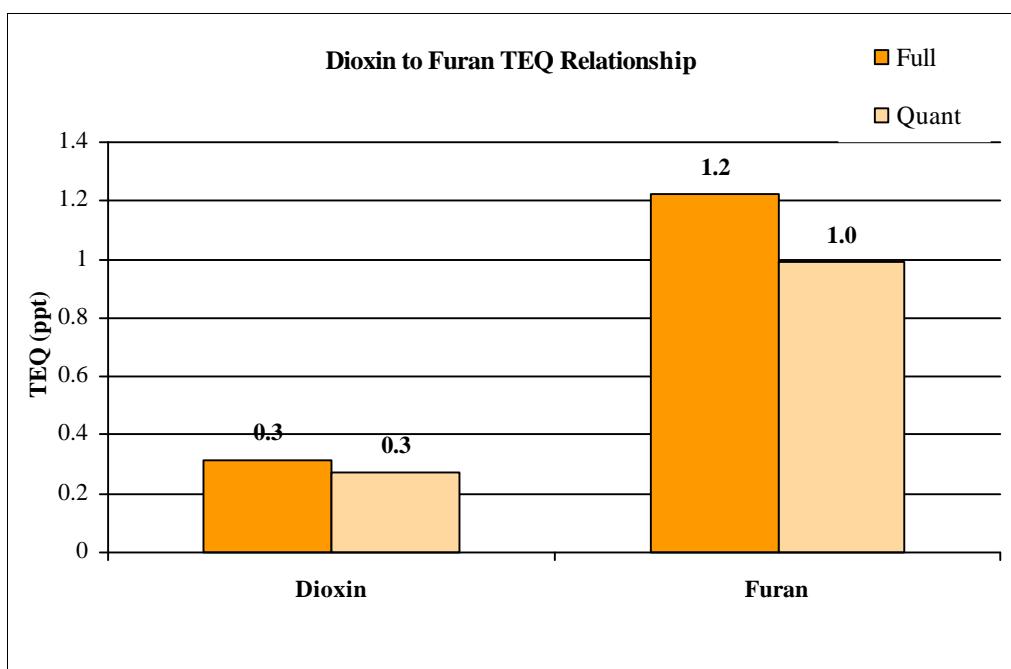
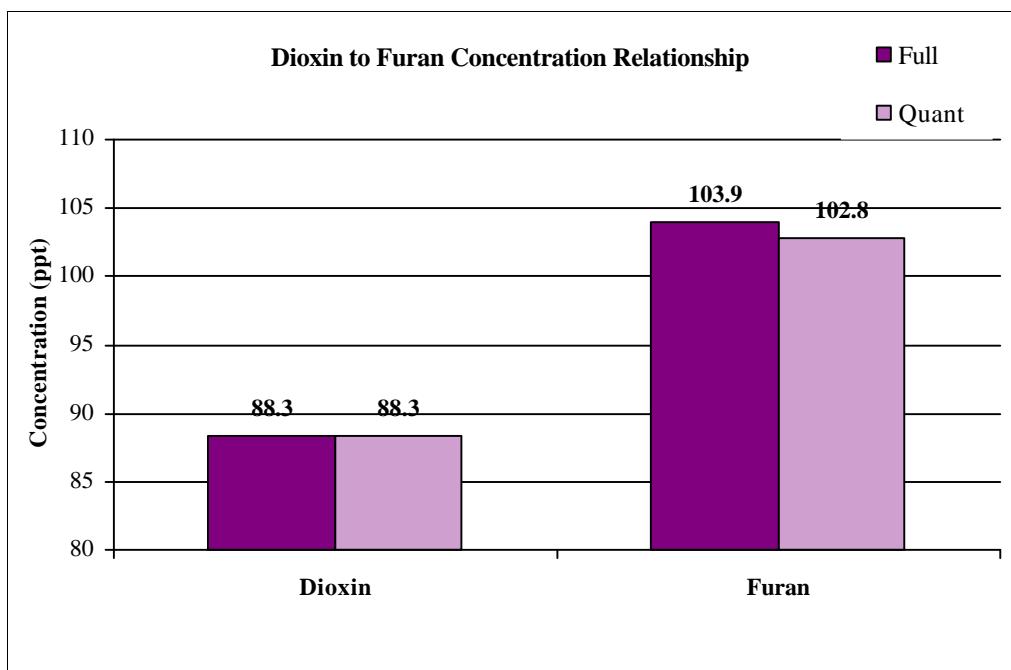


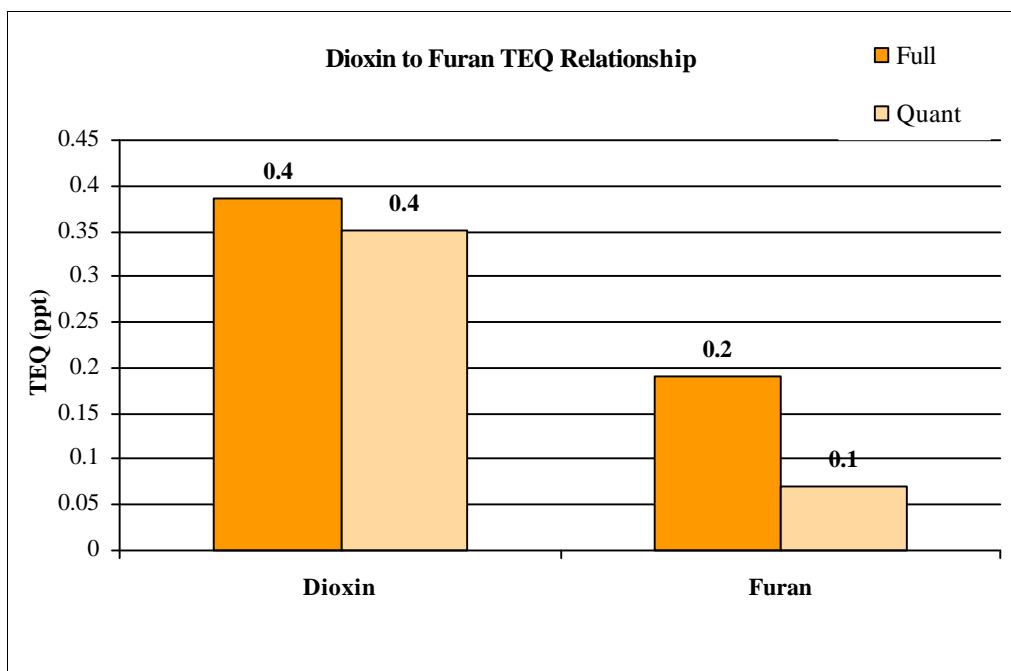
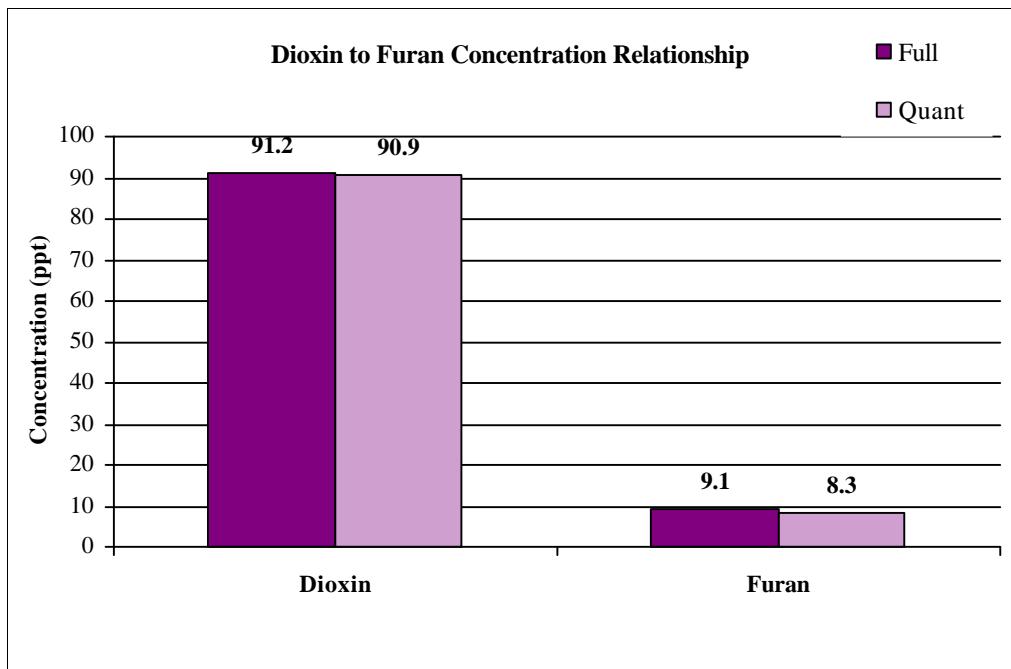
Sample 693

S34



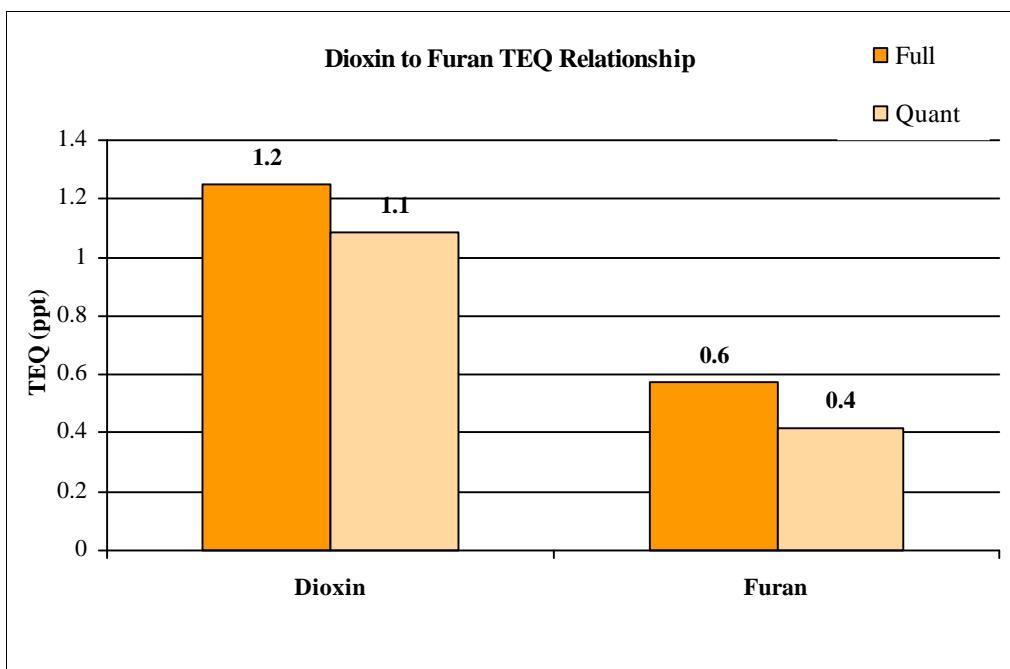
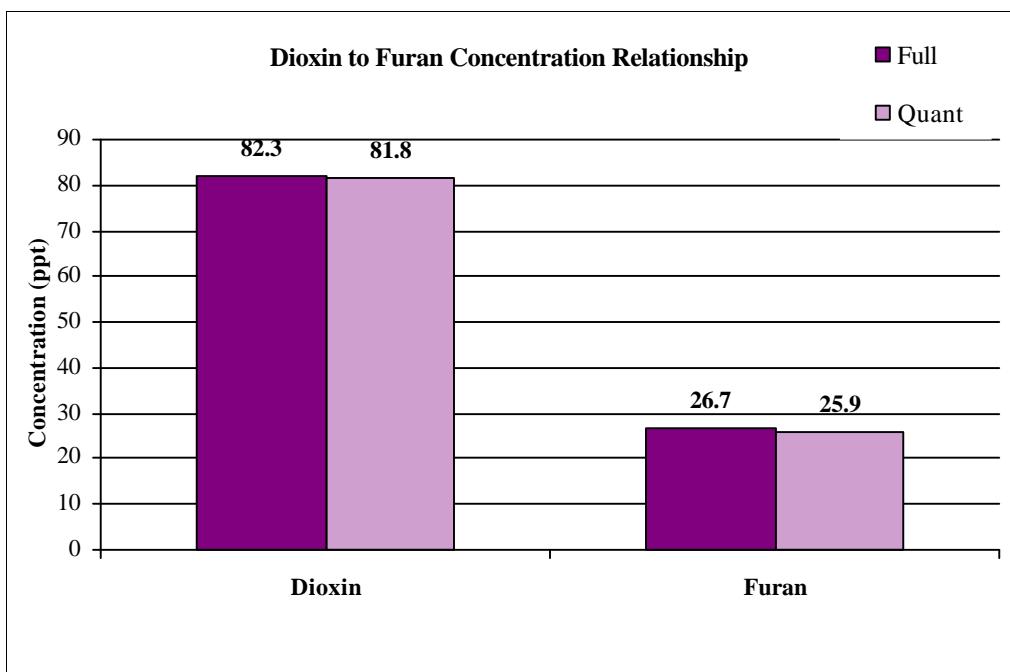
*Sample 389**S35*

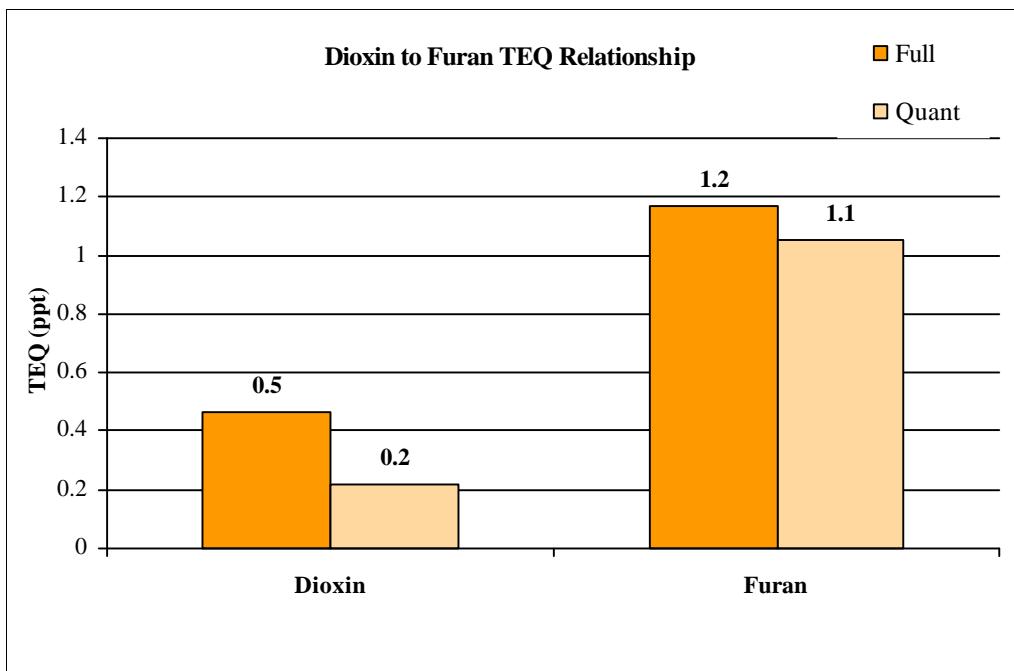
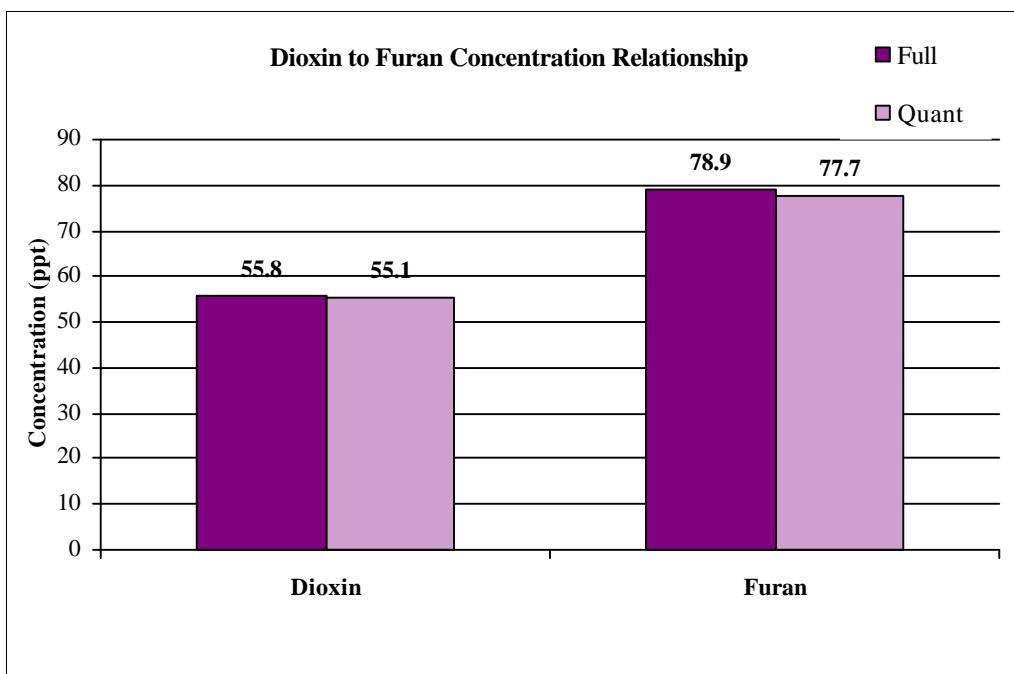
*Sample 991**S36*

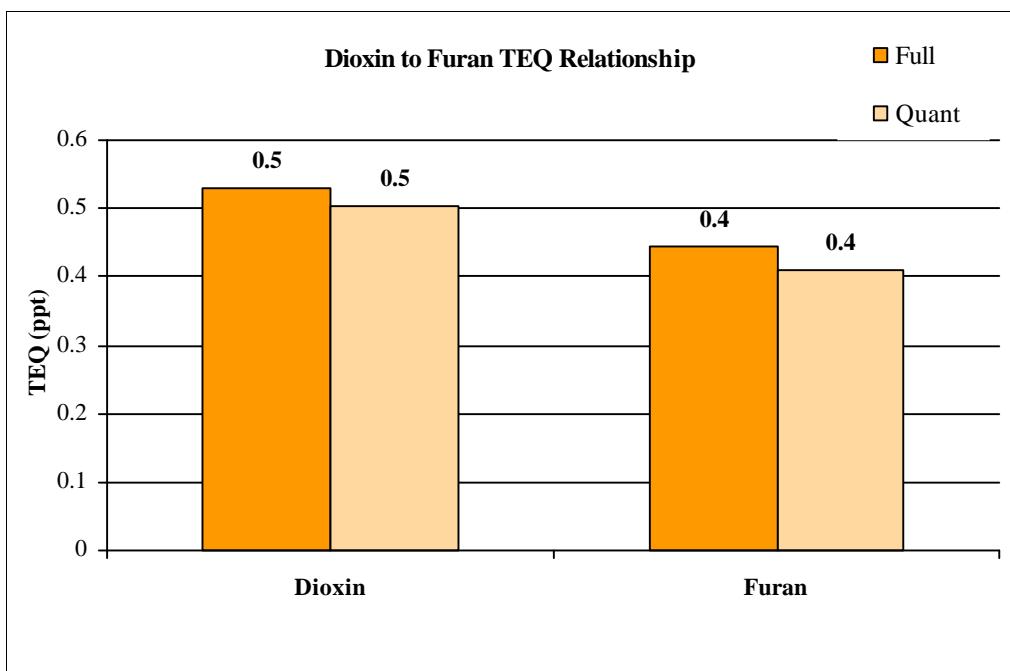
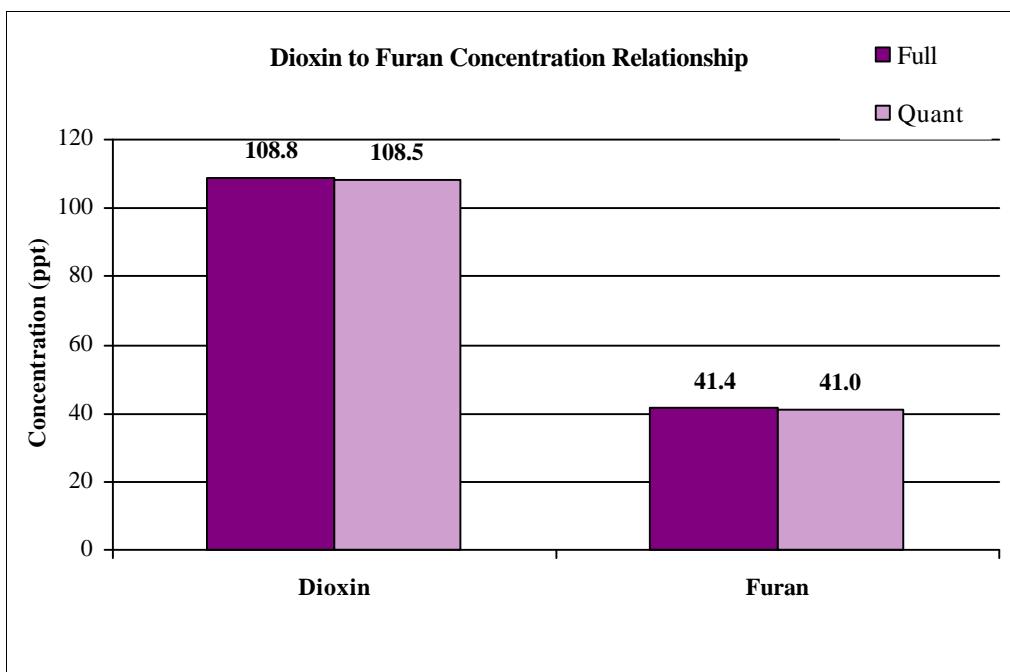
*Sample 102**S4*

*Sample 234*

S5

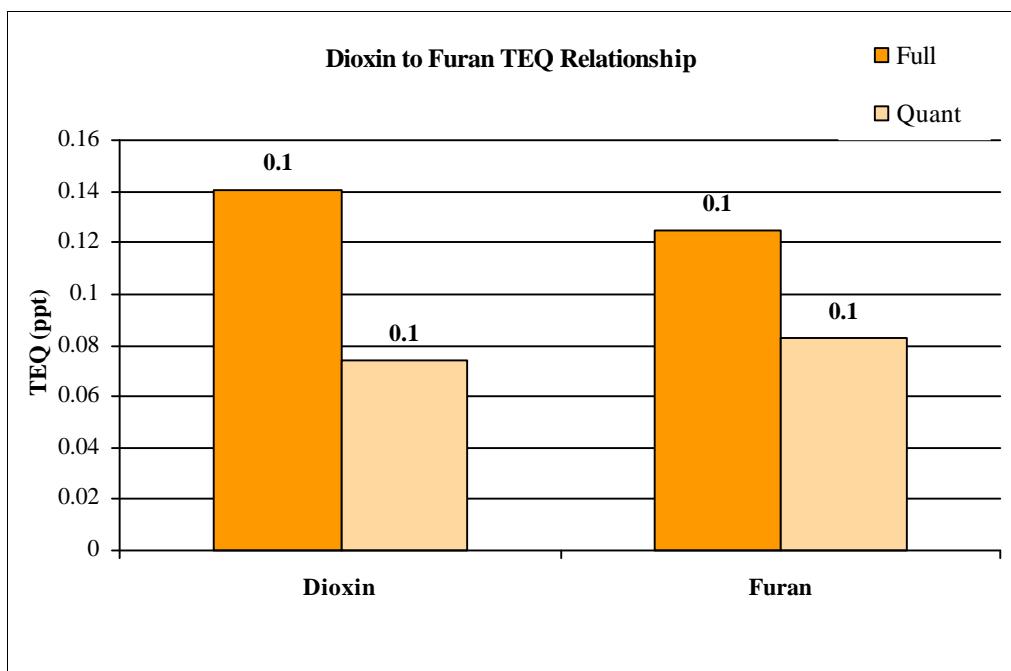
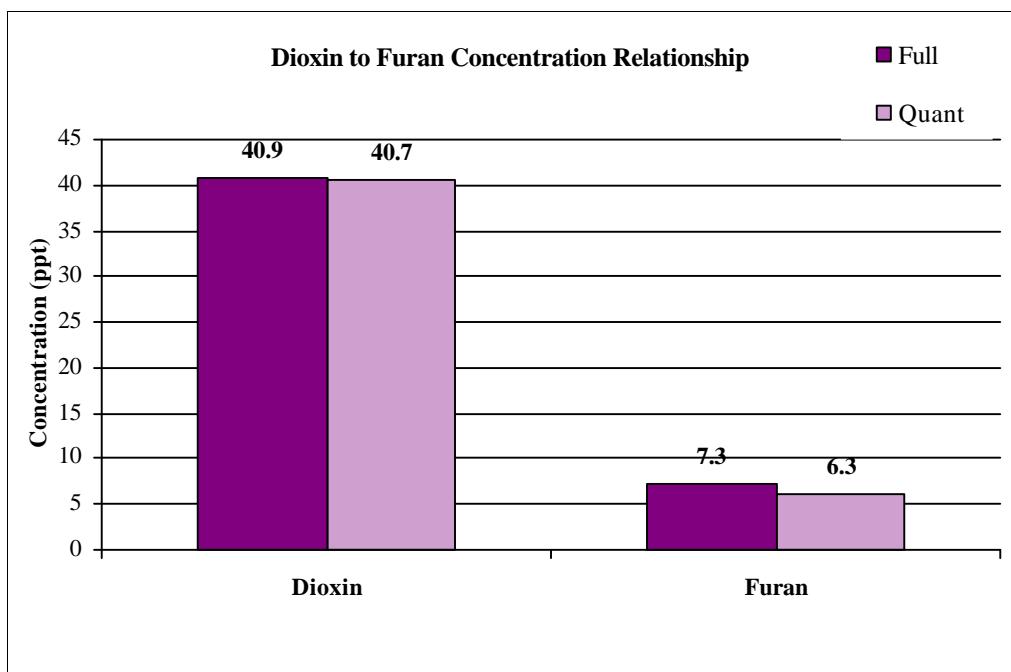


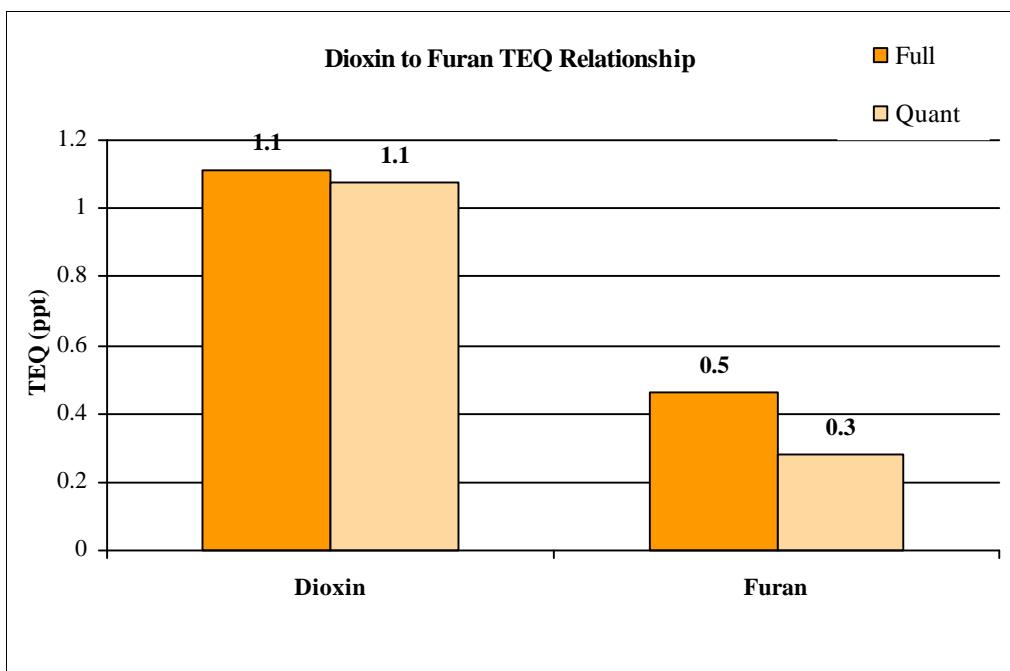
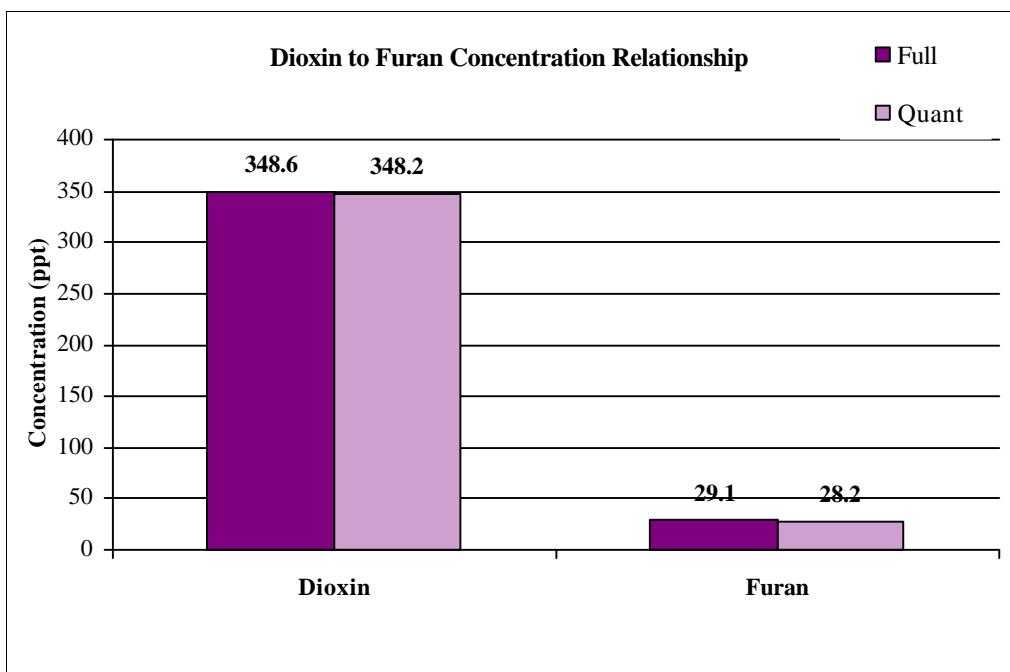
*Sample 830**S6*

*Sample 788**S7*

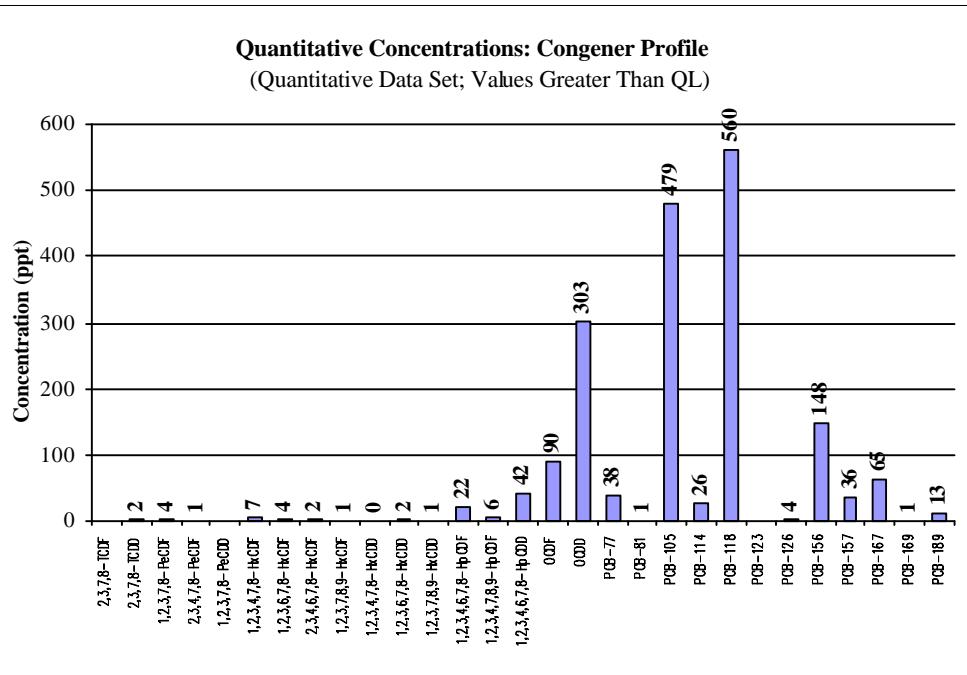
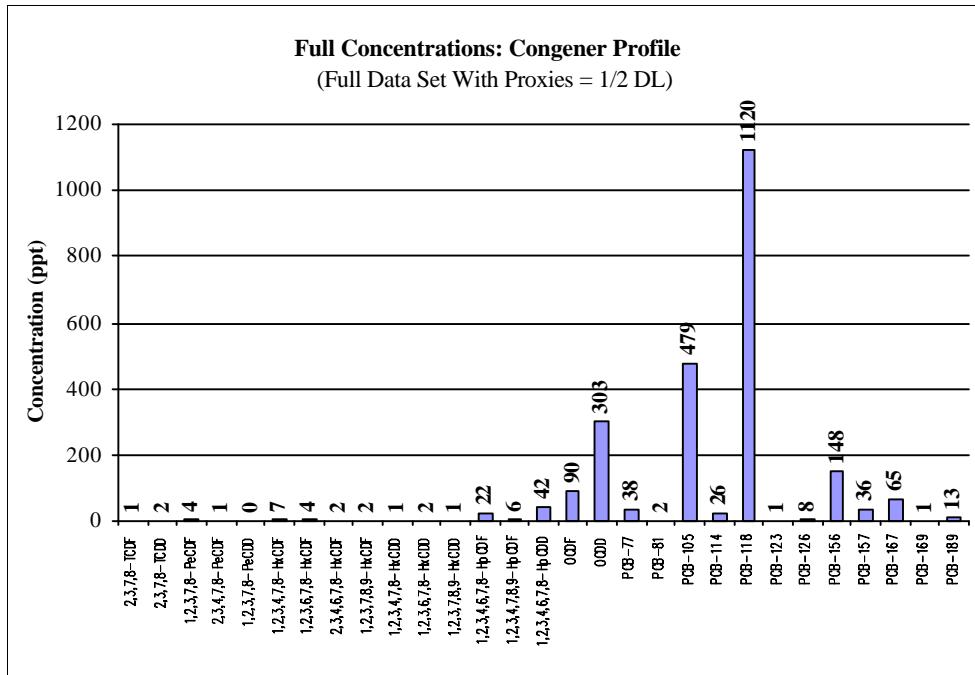
*Sample 589*

S8



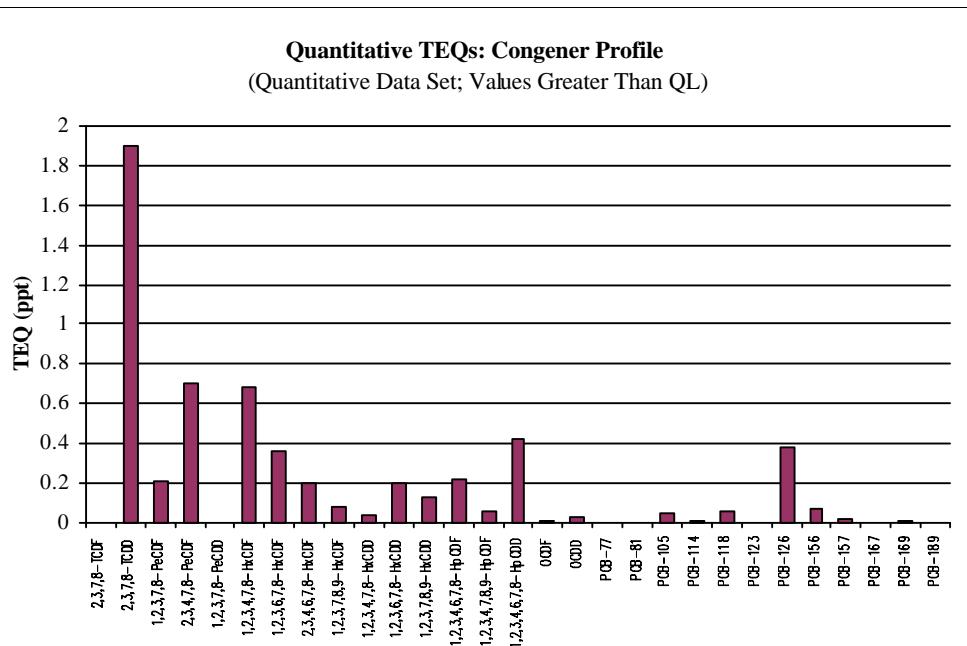
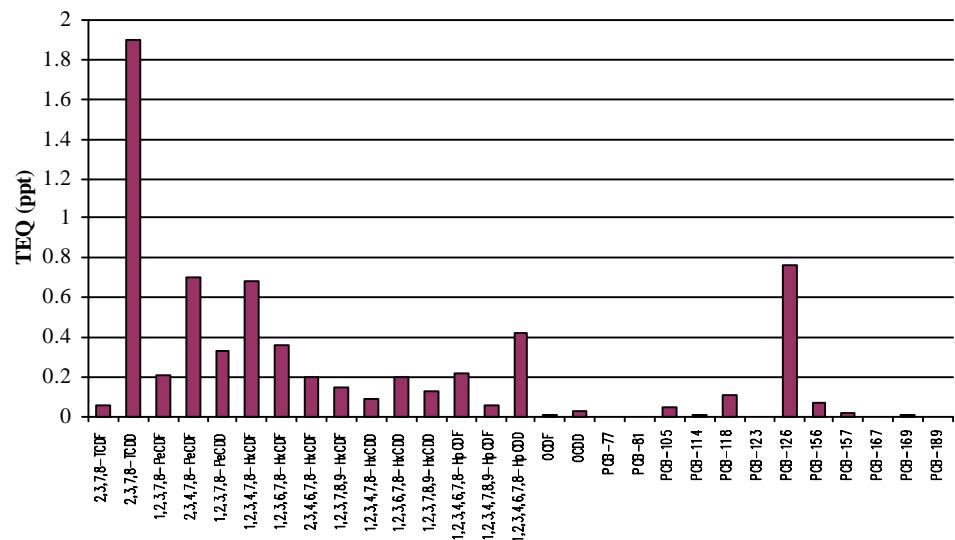
*Sample 249**S9*

*Sample*      429-B      S2      Bulk

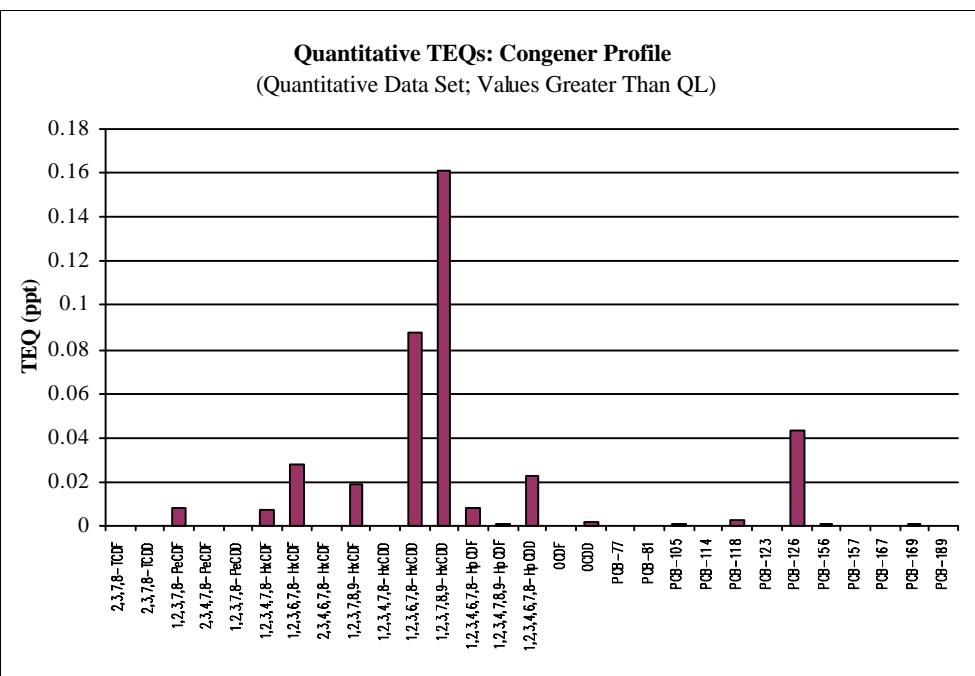
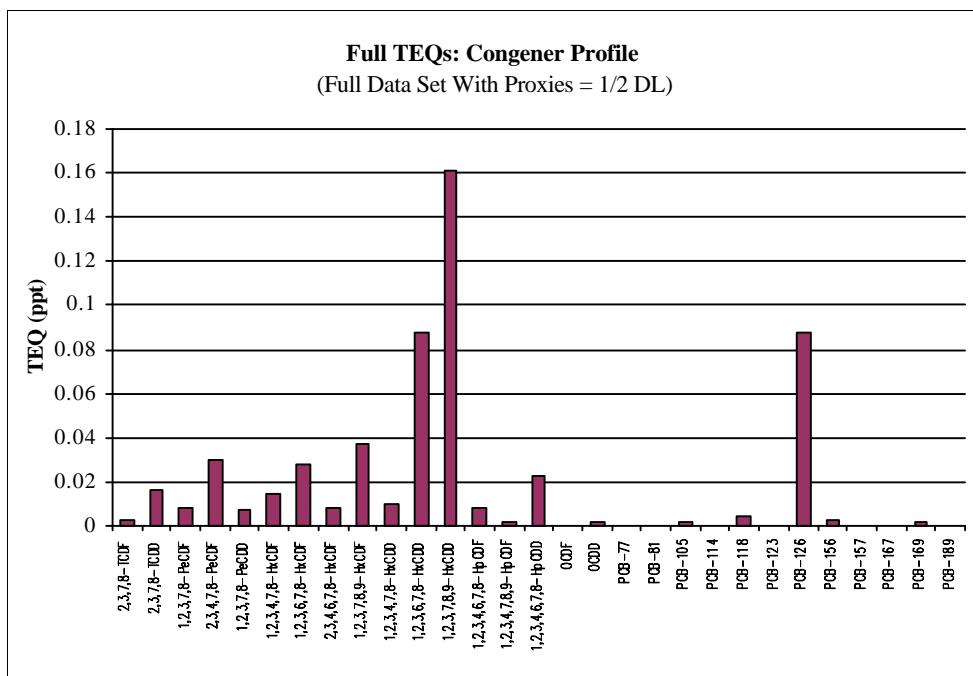
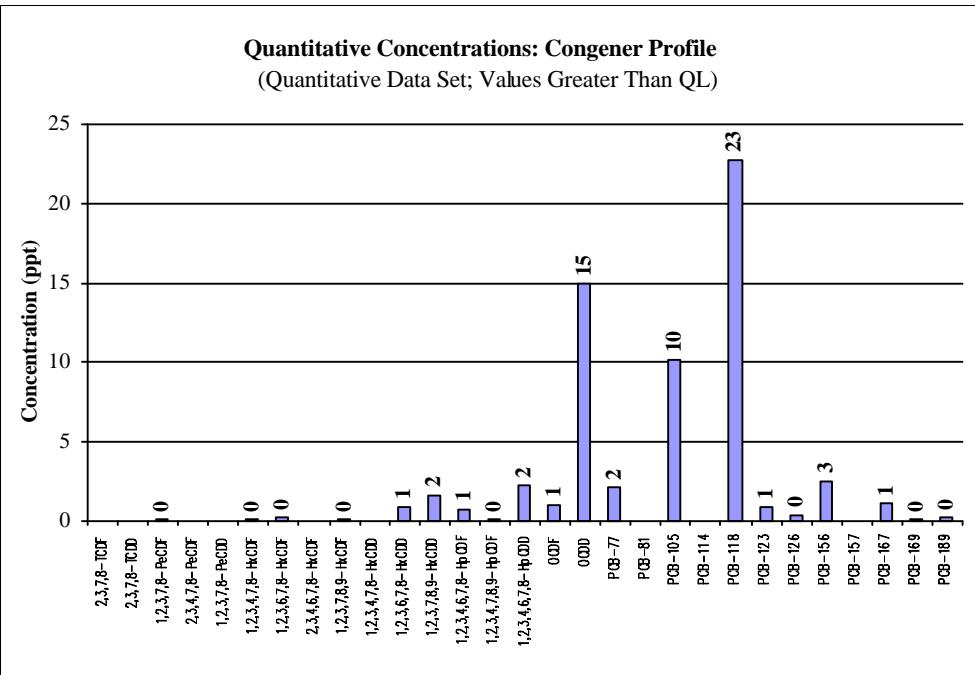
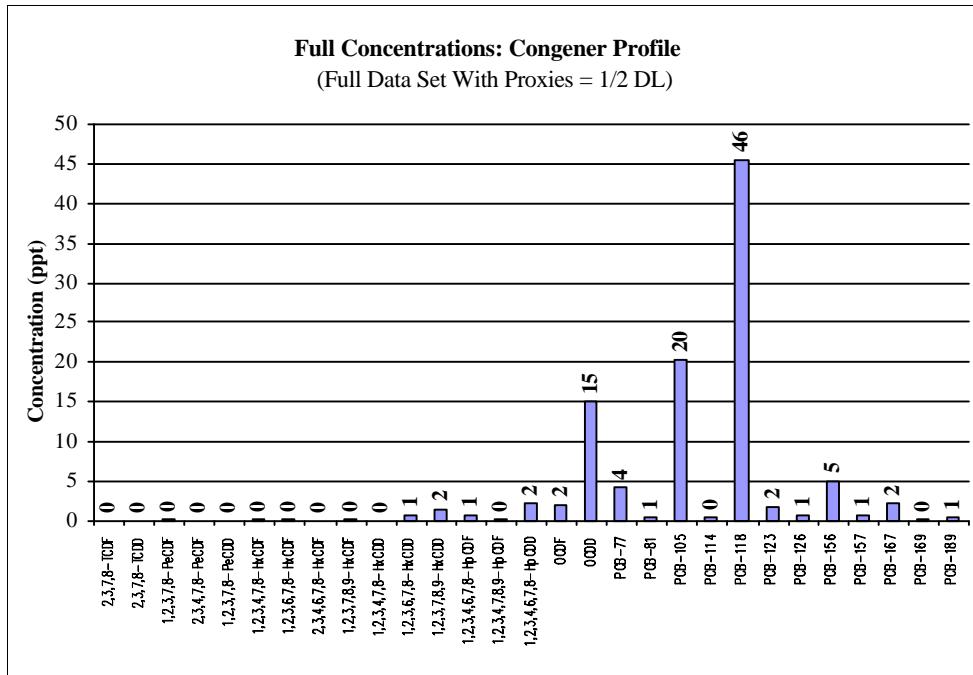


## **Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

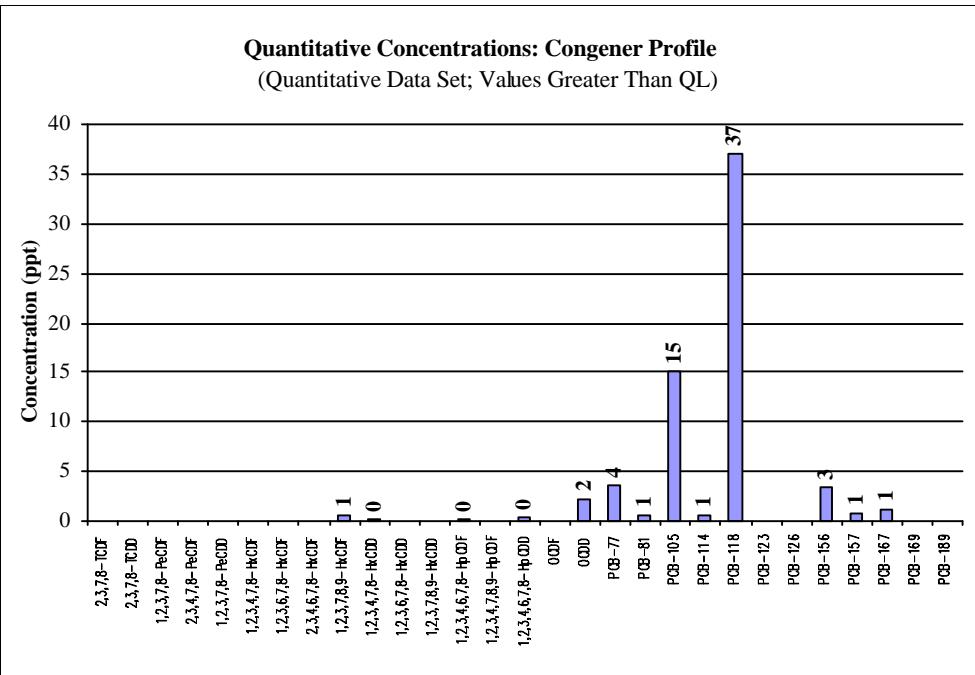
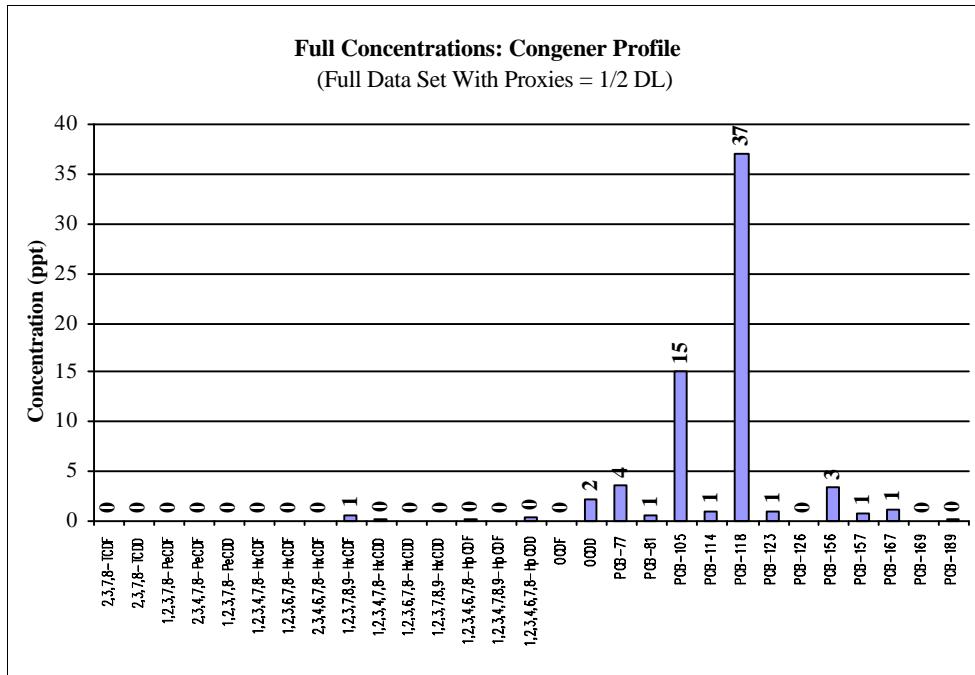


*Sample*      338      S23      *Duplicate*



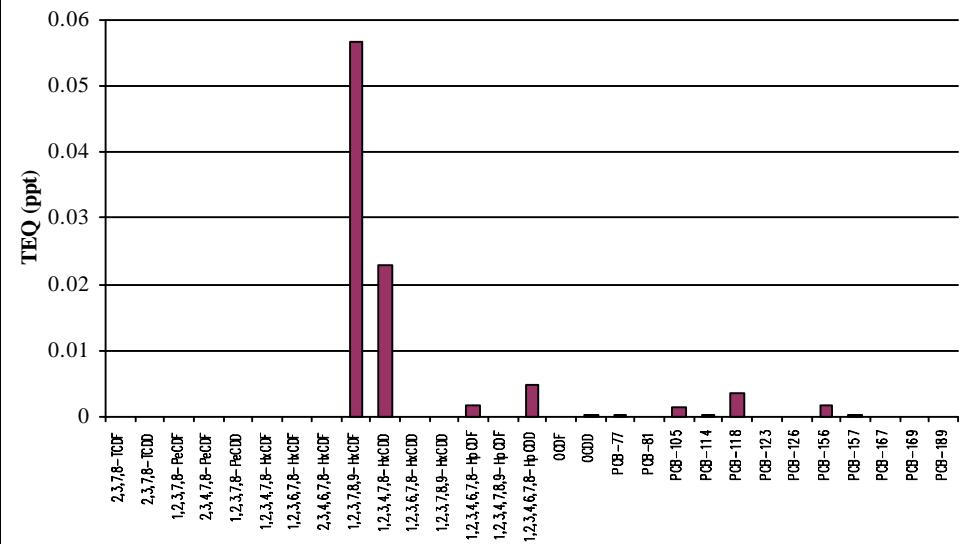
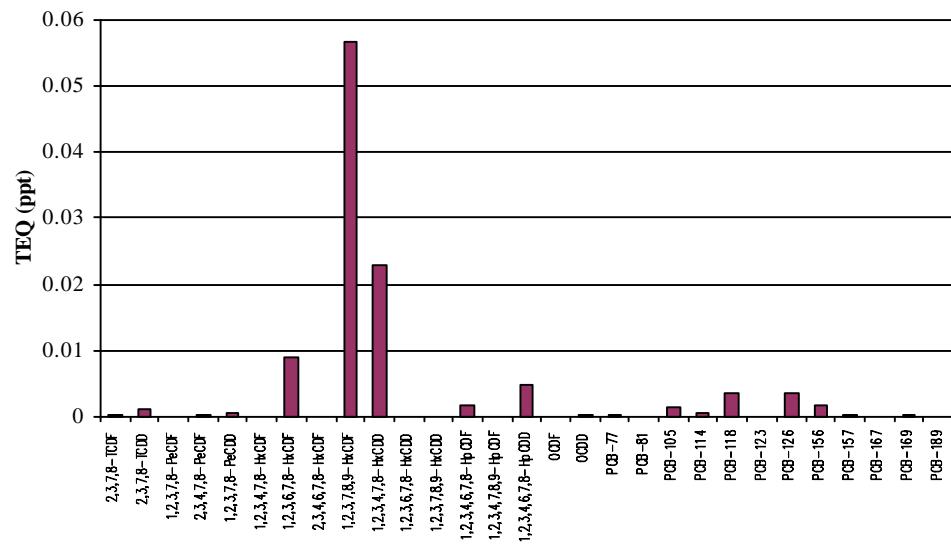
### *Sample GAAWMB*

### *Lab Blank*



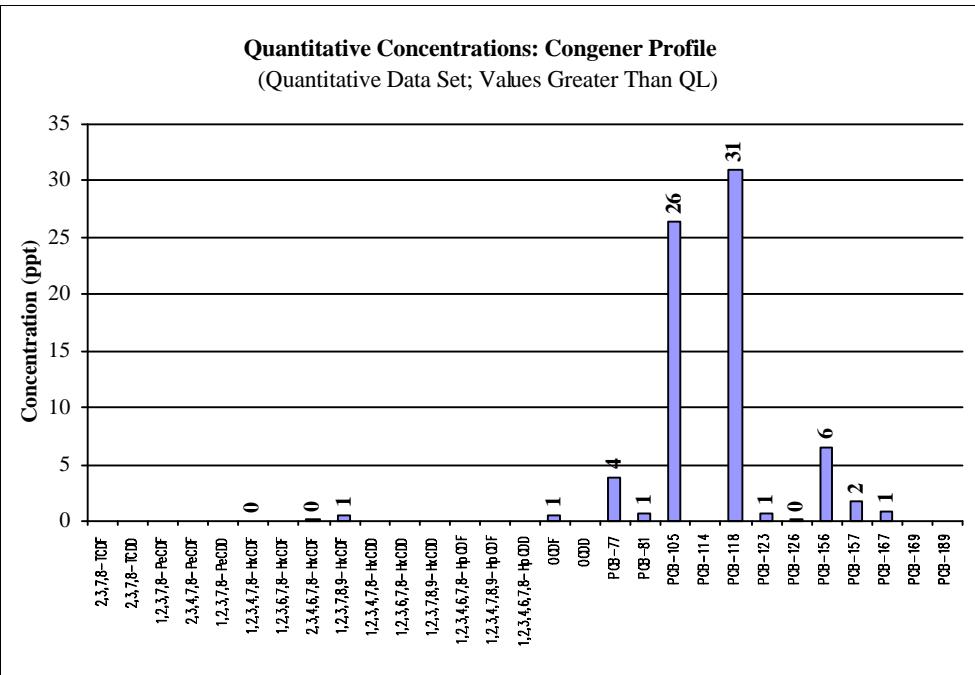
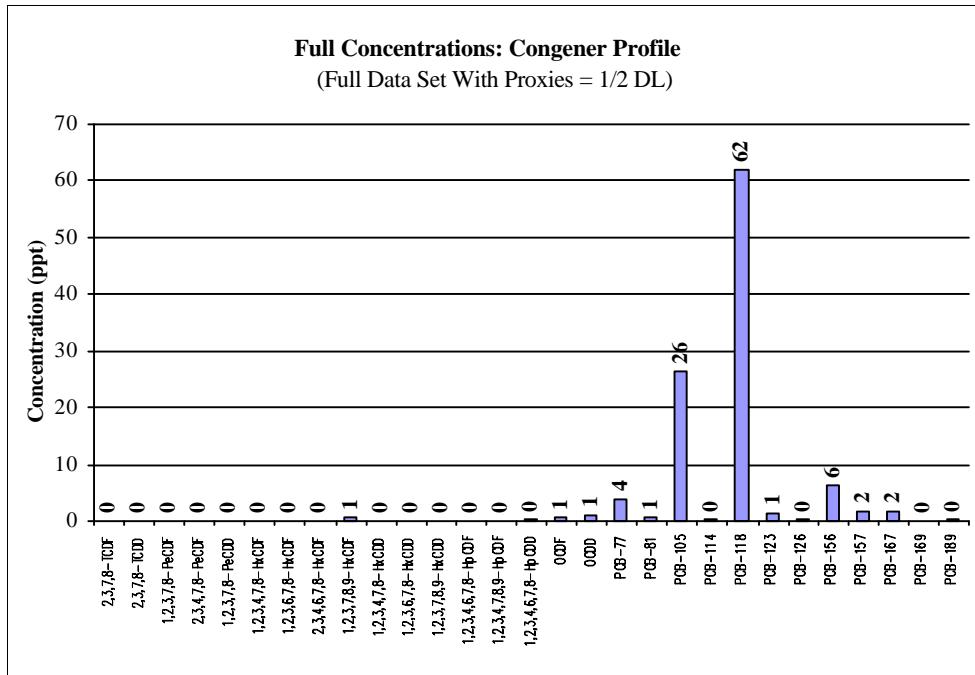
## **Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)



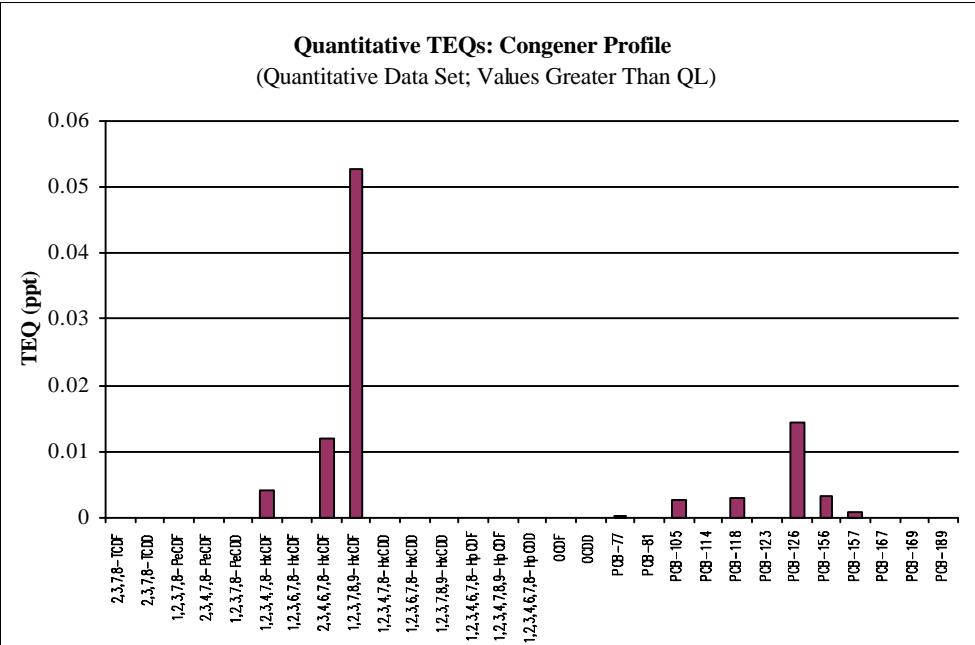
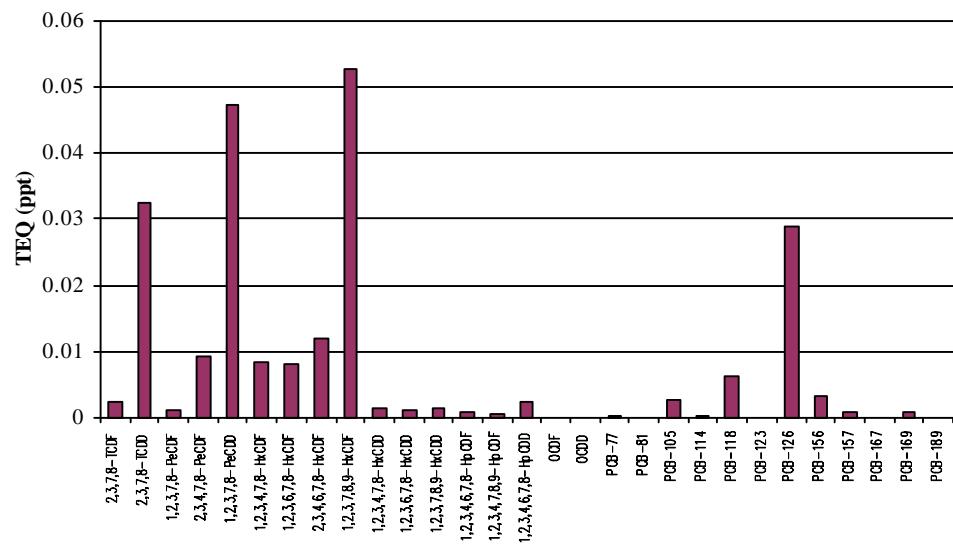
### *Sample GAA*XMB

## *Lab Blank*



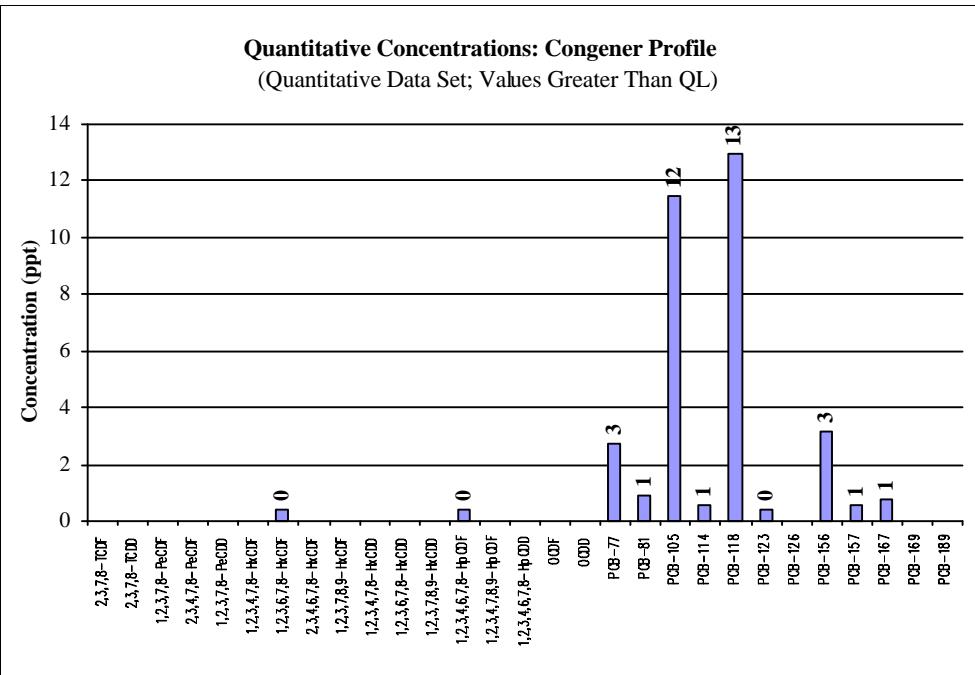
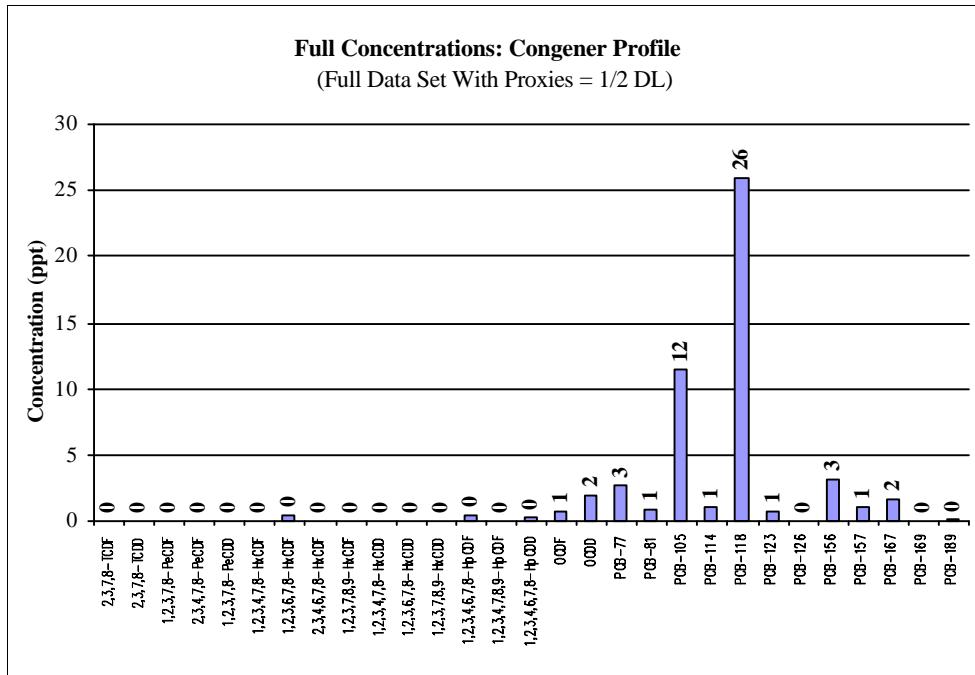
## **Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)



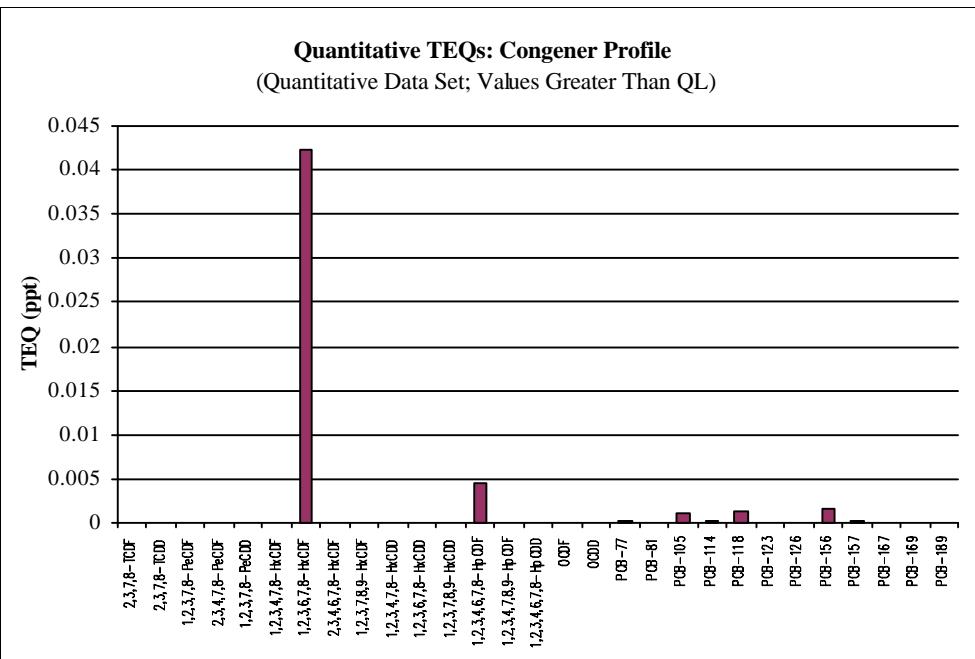
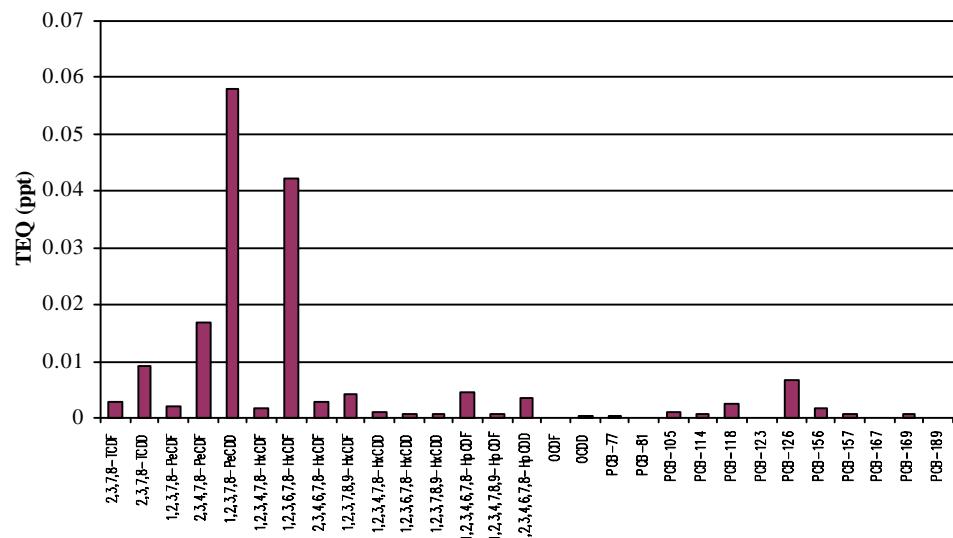
*Sample* **GAA YMB**

## *Lab Blank*

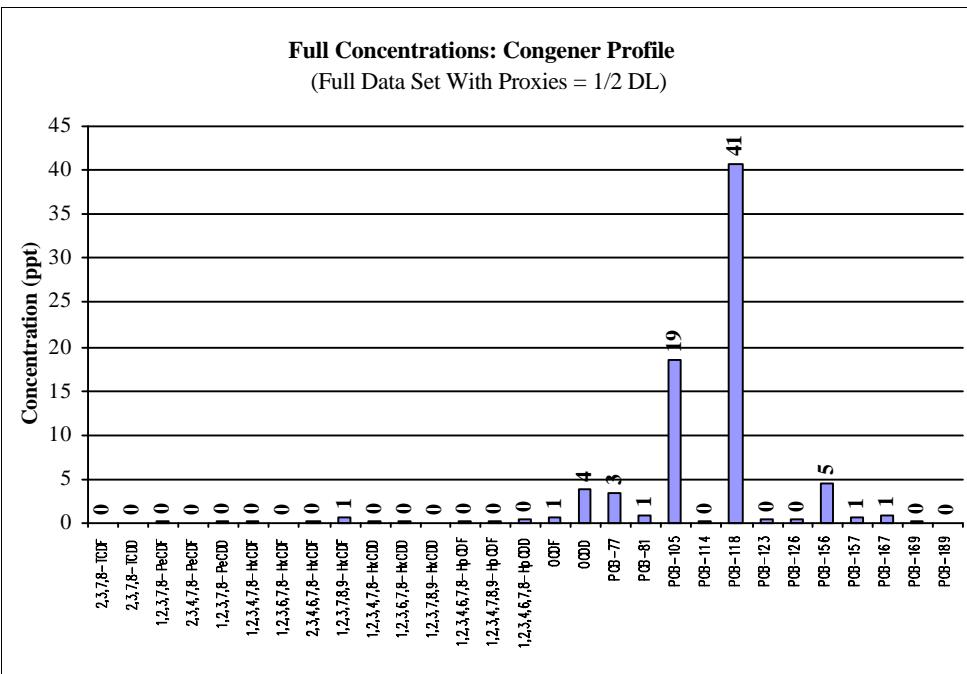


## **Full TEQs: Congener Profile**

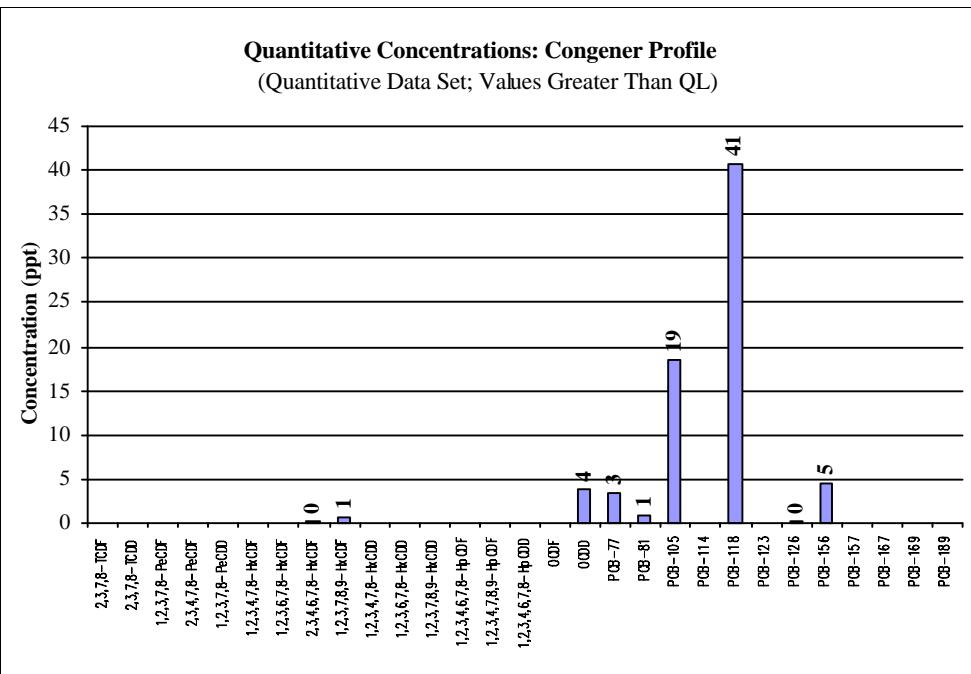
(Full Data Set With Proxies = 1/2 DL)



### *Sample GBAEMB*

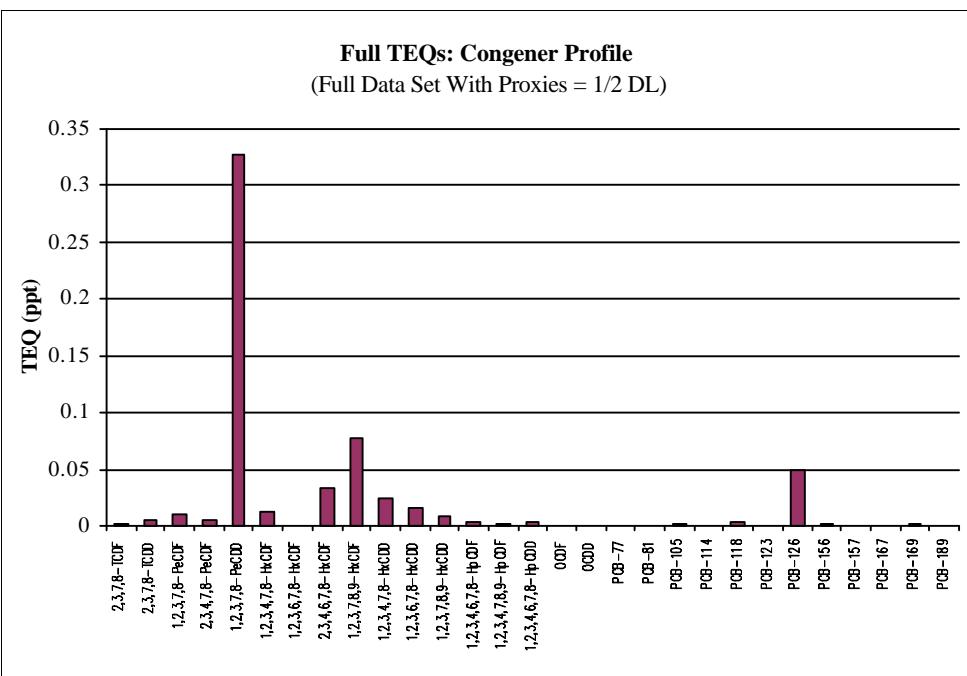


## *Lab Blank*



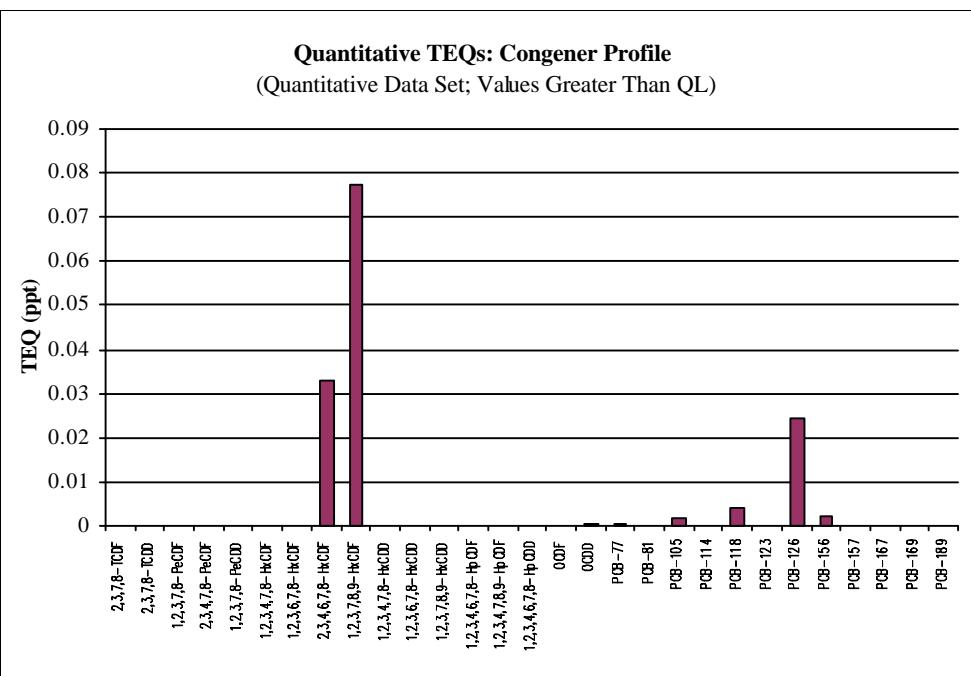
## **Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

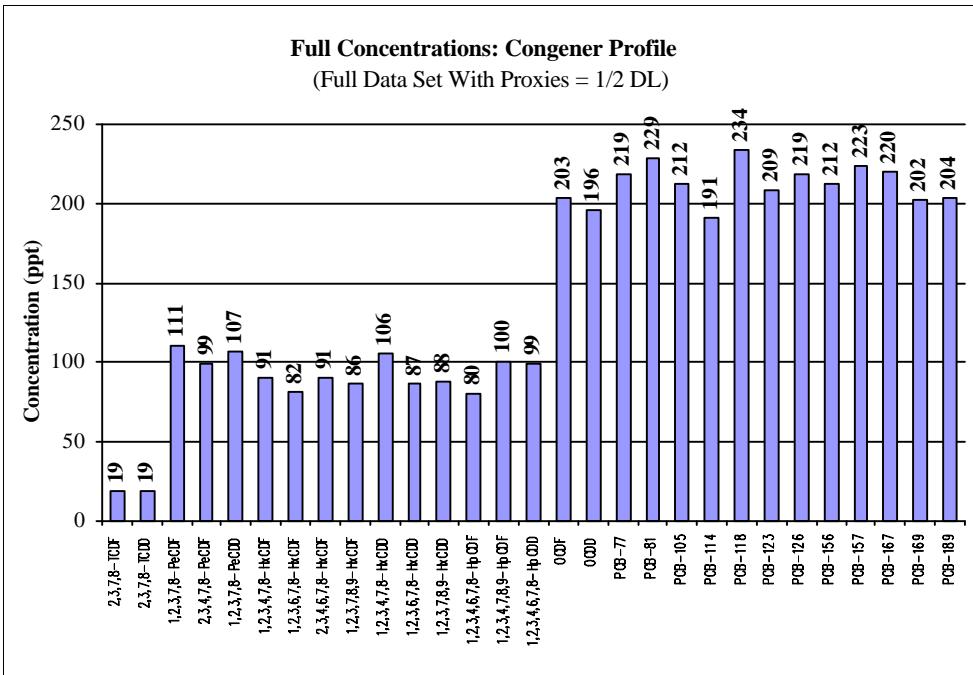


## **Quantitative TEQs: Congener Profile**

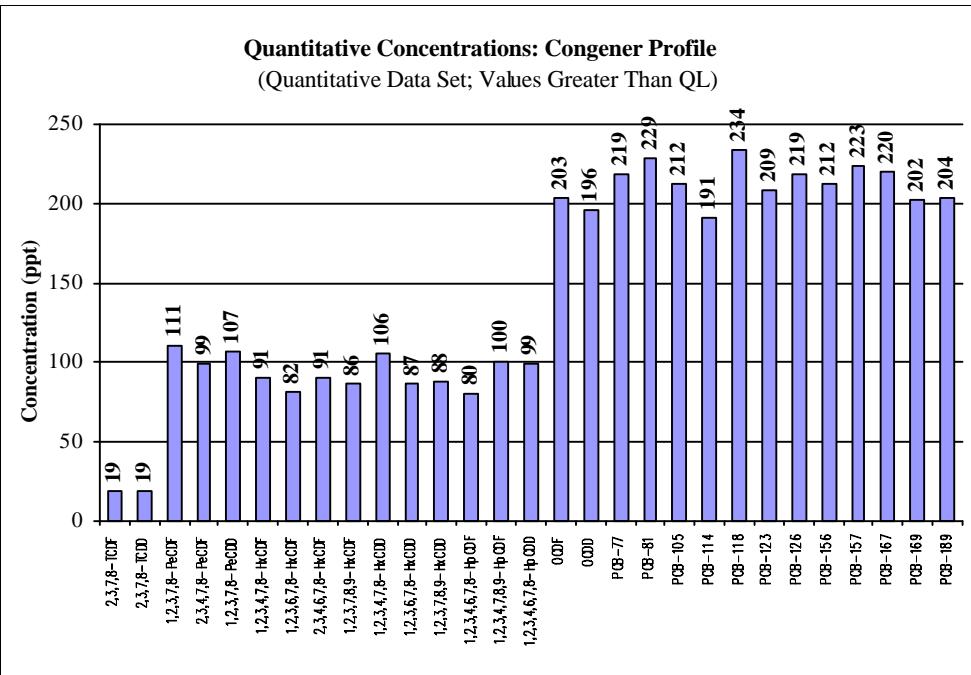
(Quantitative Data Set; Values Greater Than QL)



Sample GAAWLCS

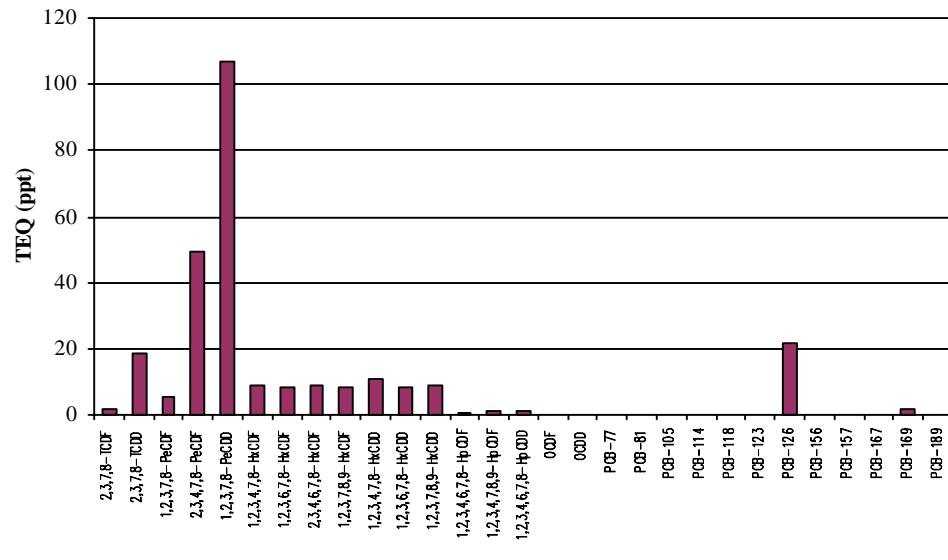


## *Lab Spike*

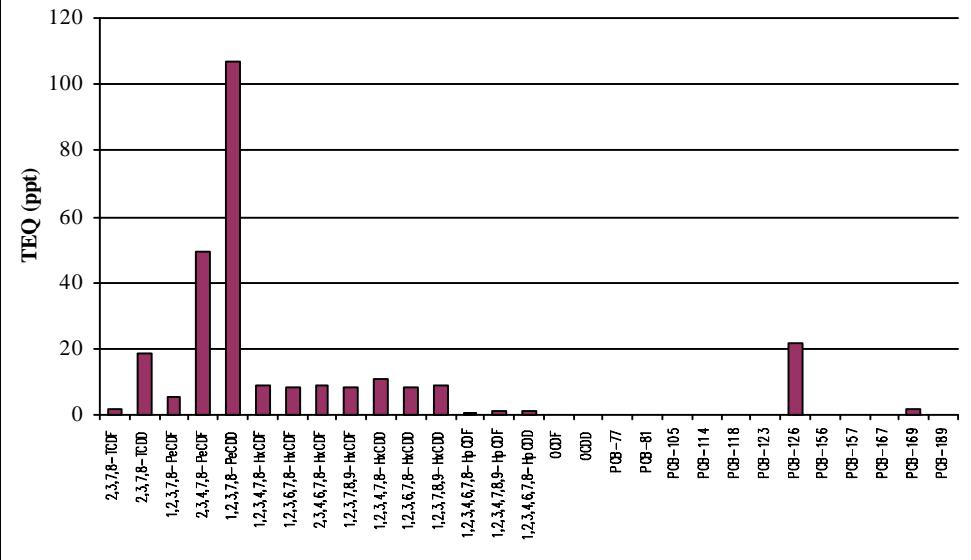


## **Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

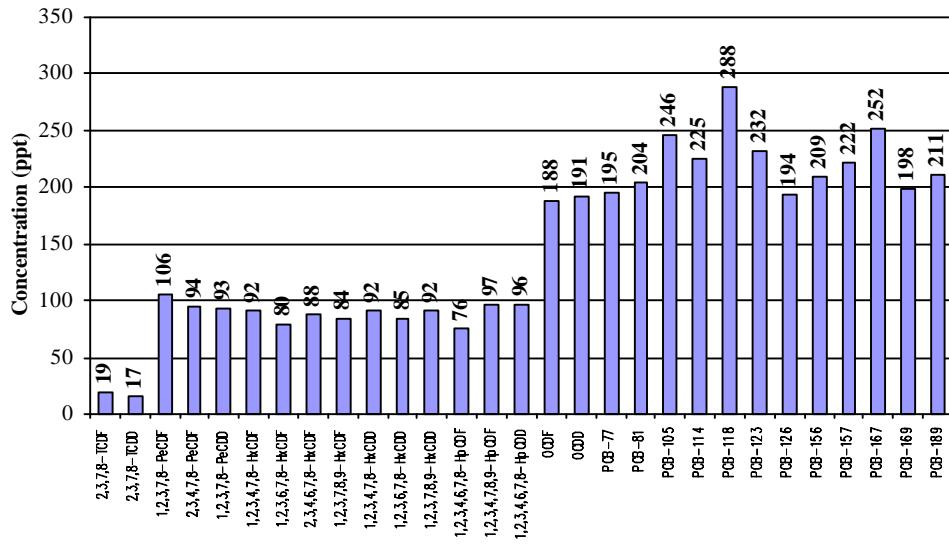


## **Quantitative TEQs: Congener Profile**

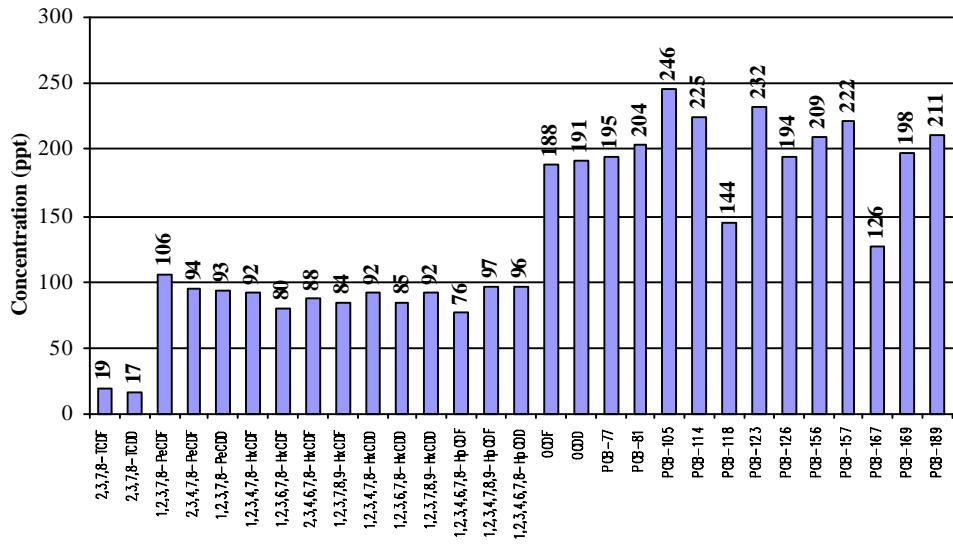


**Appendix B4. Congener Profiles for QC Samples****Sample GAAXLCS****Lab Spike****Full Concentrations: Congener Profile**

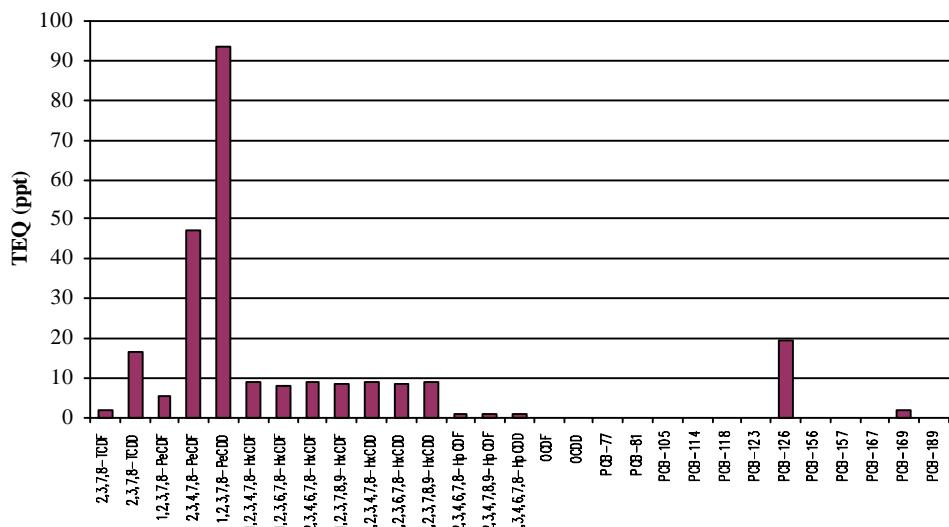
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Congener Profile**

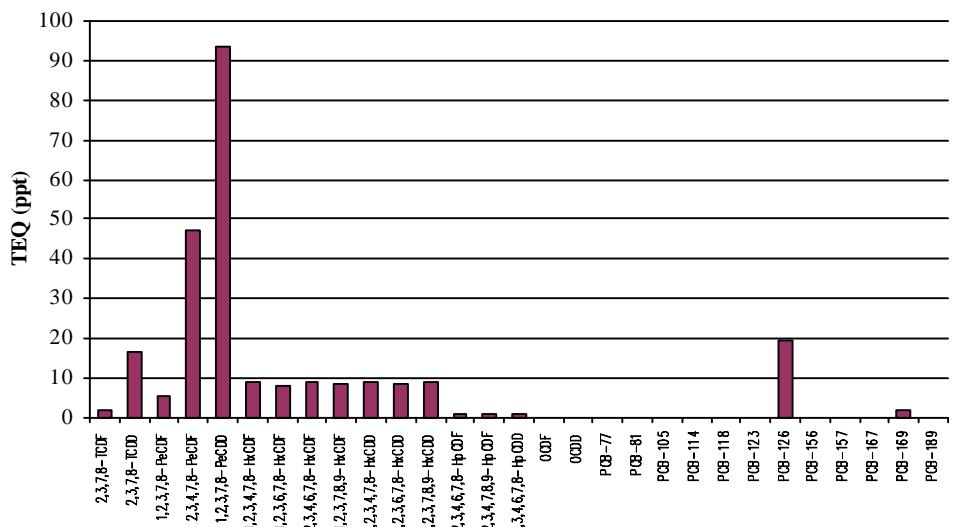
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

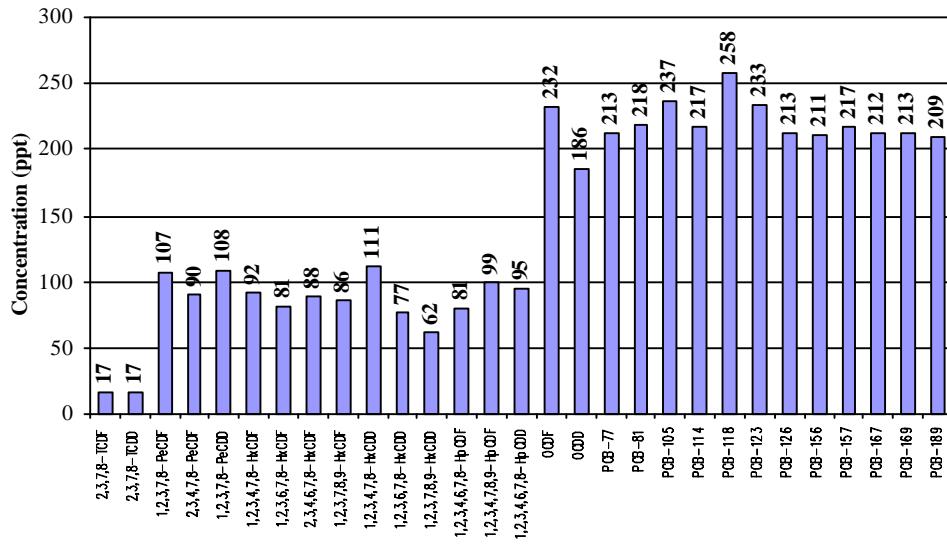
**Quantitative TEQs: Congener Profile**

(Quantitative Data Set; Values Greater Than QL)

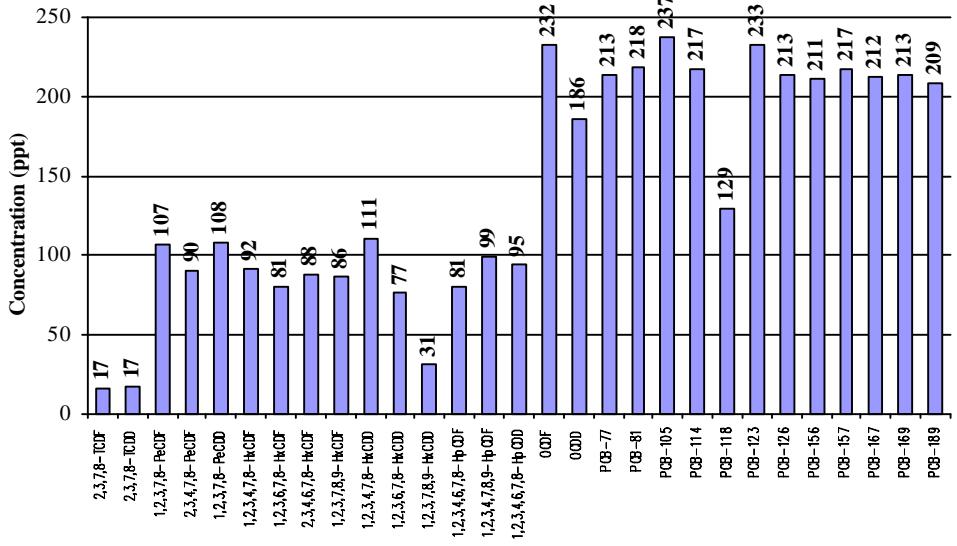


**Appendix B4. Congener Profiles for QC Samples****Sample GAAYLCS****Lab Spike****Full Concentrations: Congener Profile**

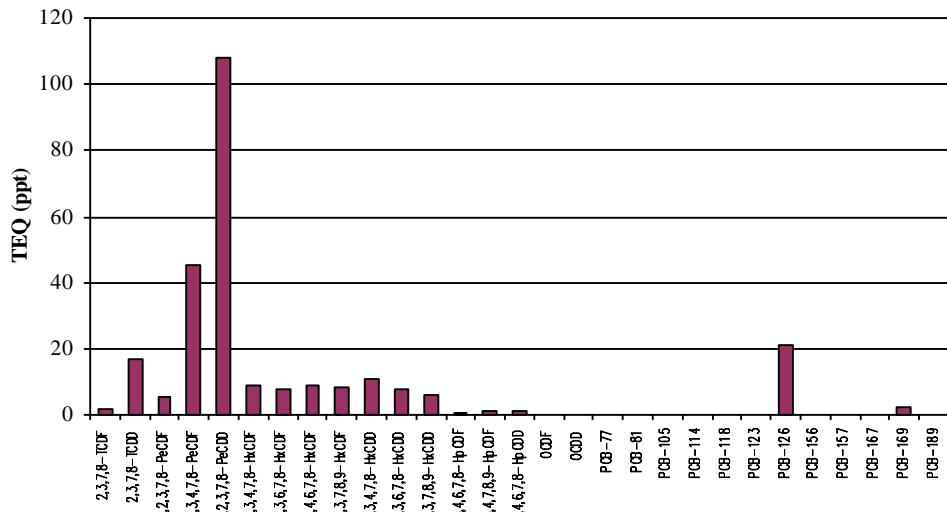
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Congener Profile**

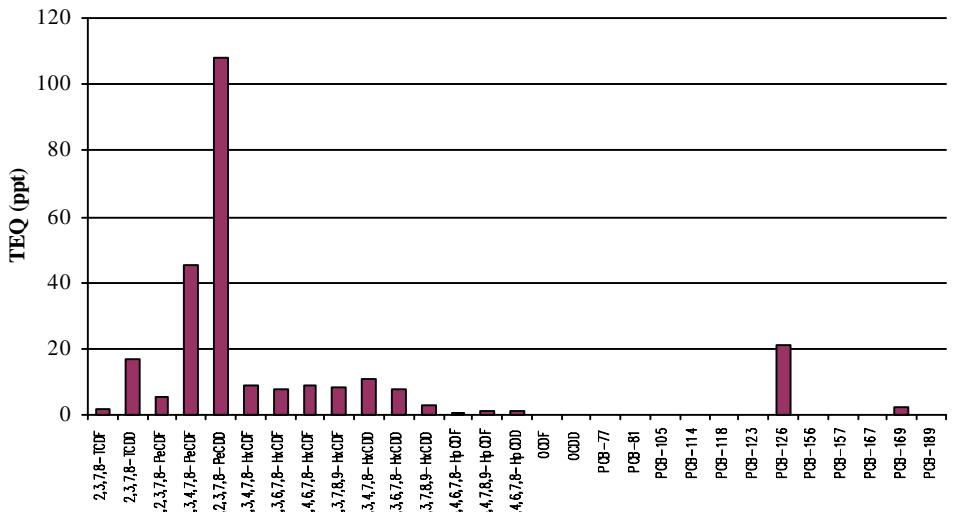
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

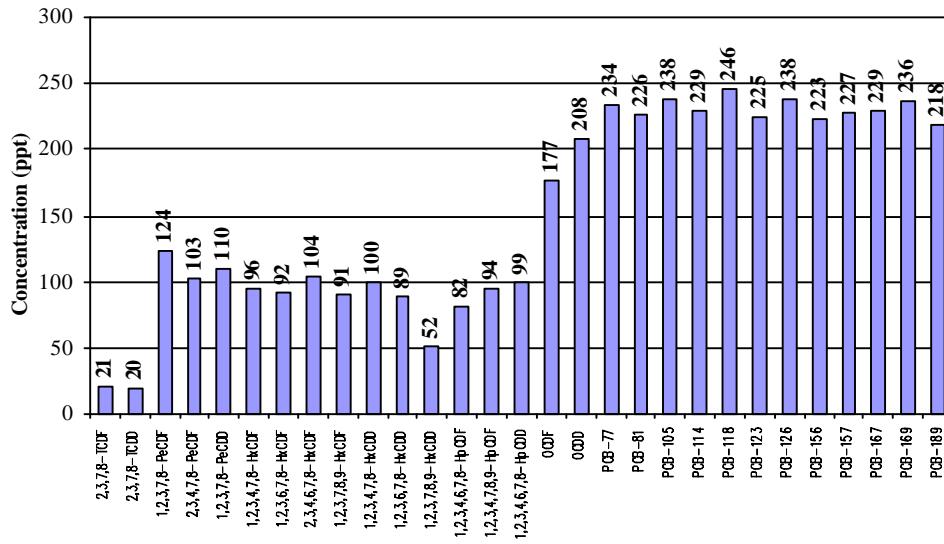
**Quantitative TEQs: Congener Profile**

(Quantitative Data Set; Values Greater Than QL)

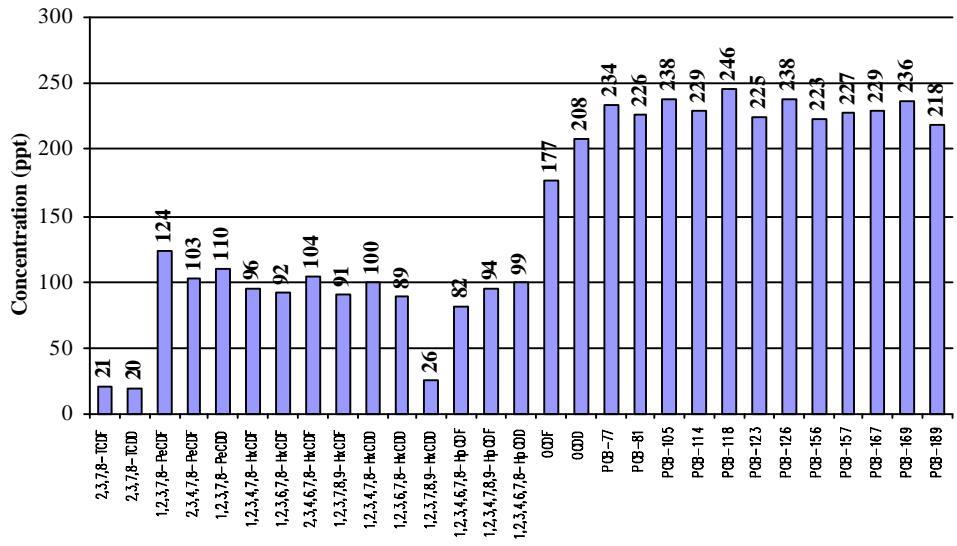


**Appendix B4. Congener Profiles for QC Samples****Sample GBAELCS****Lab Spike****Full Concentrations: Congener Profile**

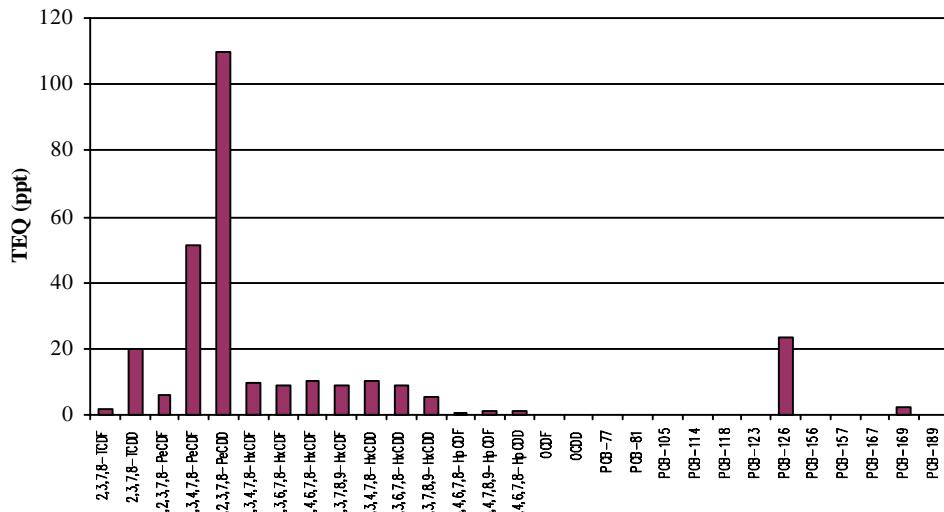
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Congener Profile**

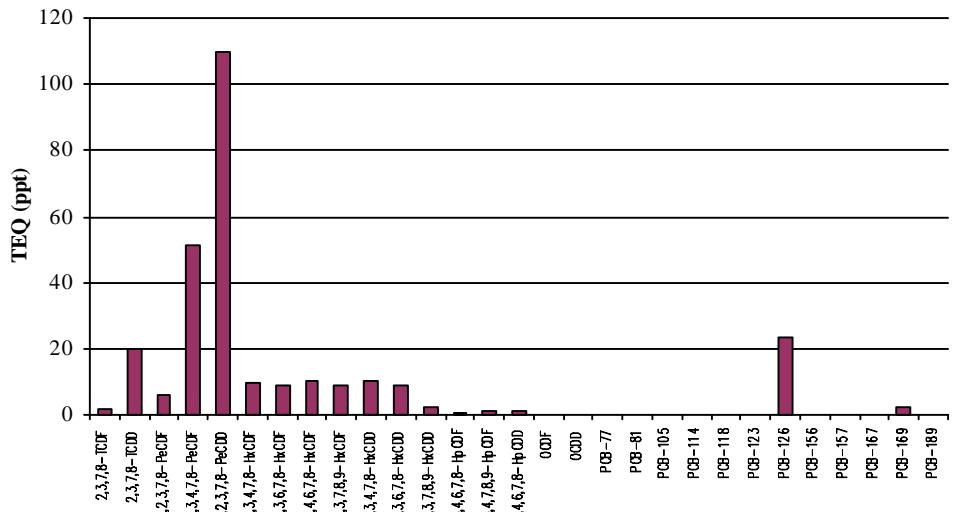
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Congener Profile**

(Quantitative Data Set; Values Greater Than QL)

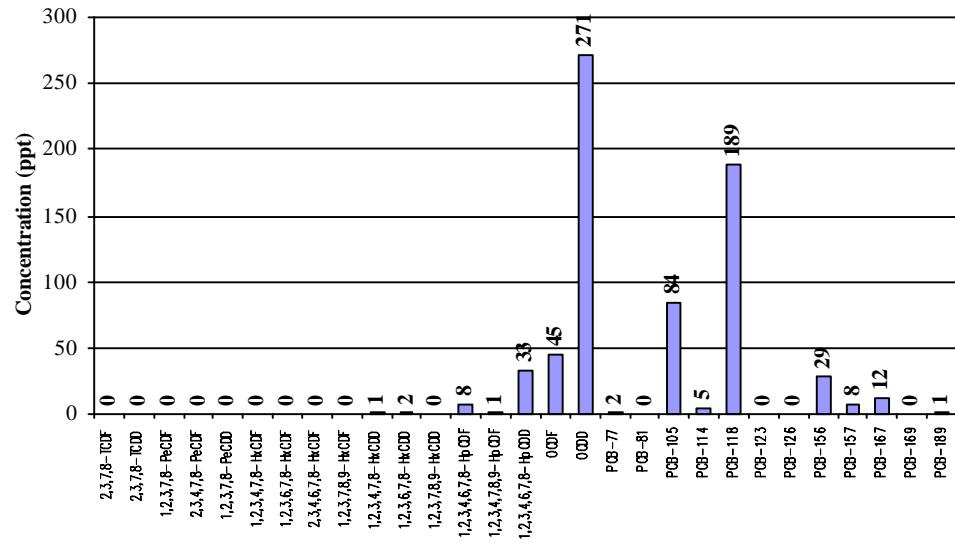


## Appendix B4. Congener Profiles for QC Samples

Sample 113 Ref-F-22 PE Clean

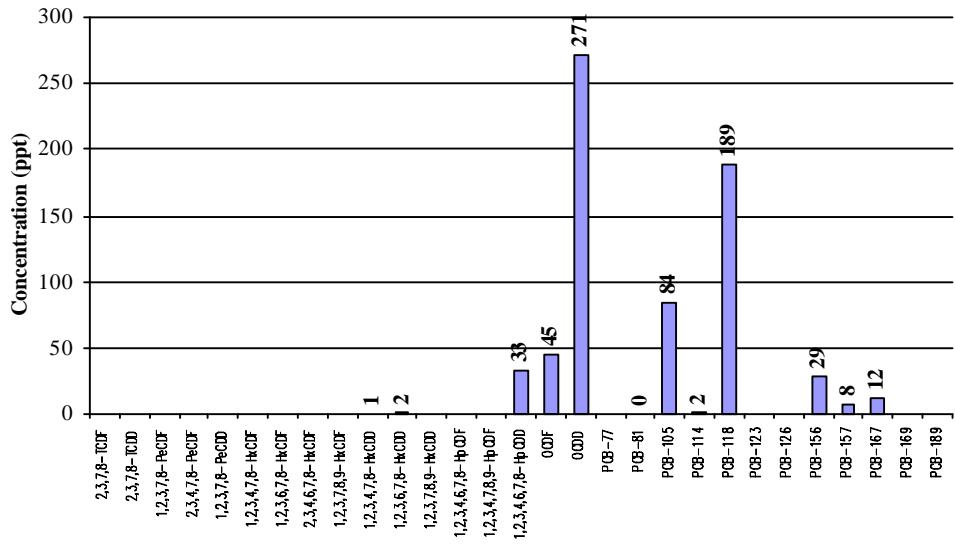
## Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



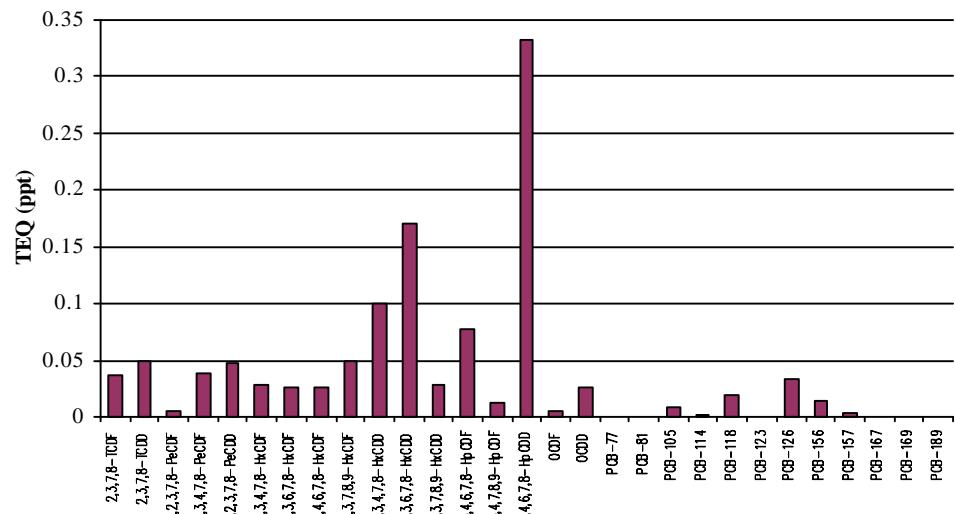
## Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



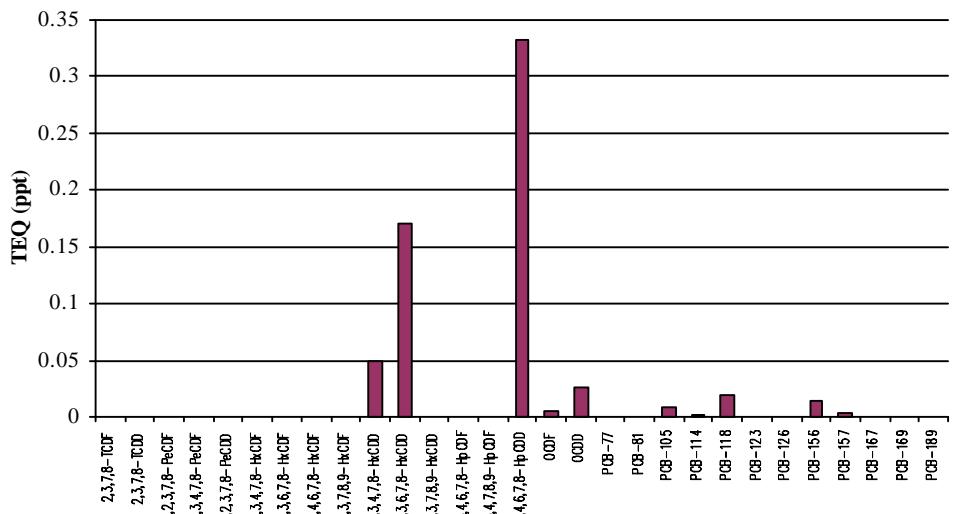
## Full TEQs: Congener Profile

(Full Data Set With Proxies = 1/2 DL)

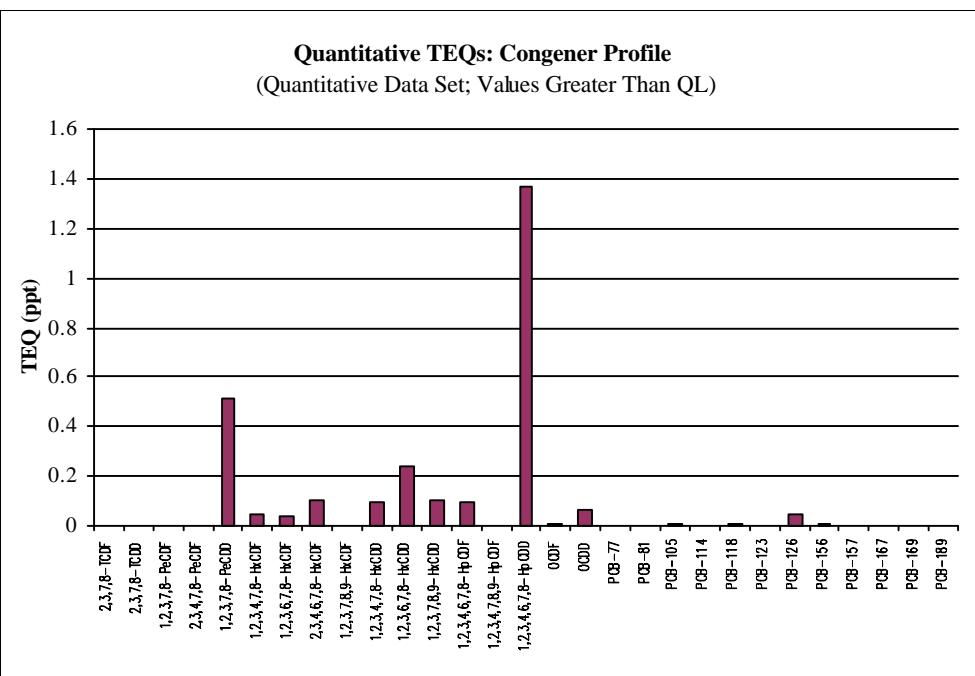
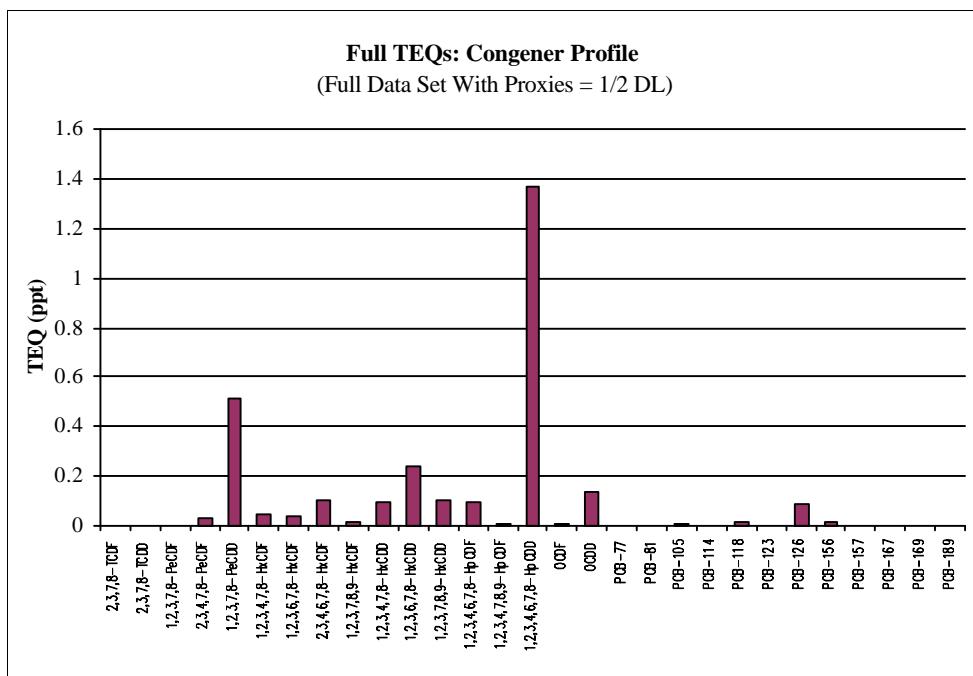
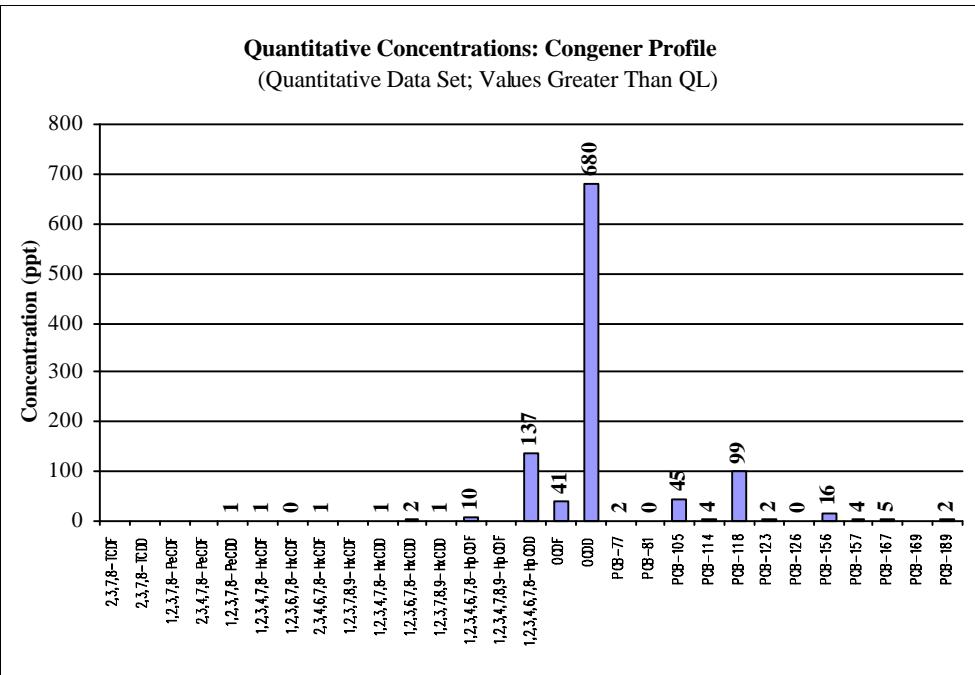
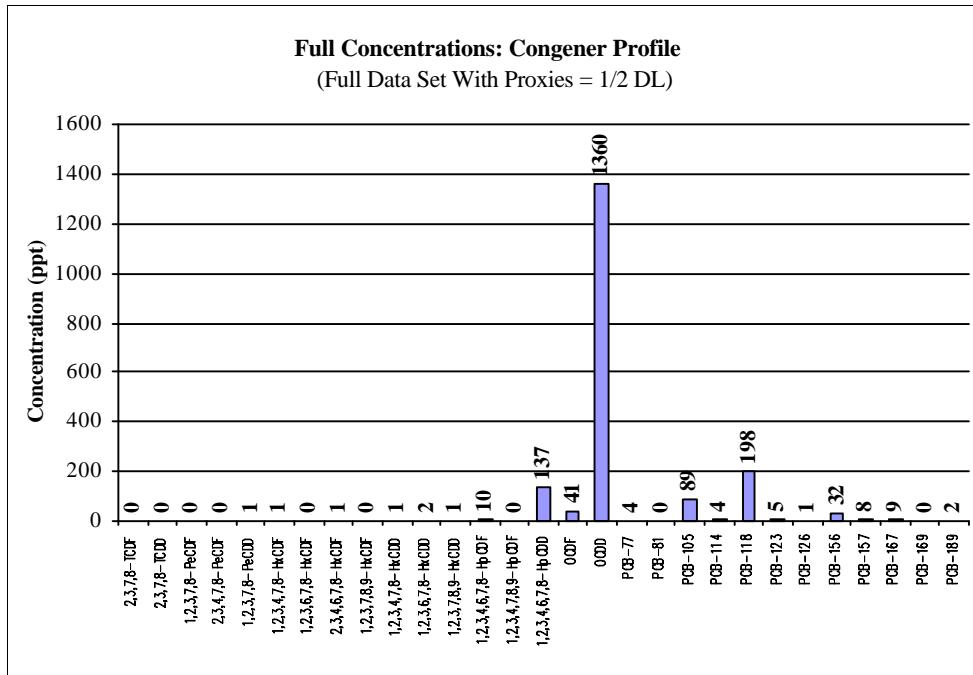


## Quantitative TEQs: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



*Sample*      172      *Ref-F-23 PE Clean*

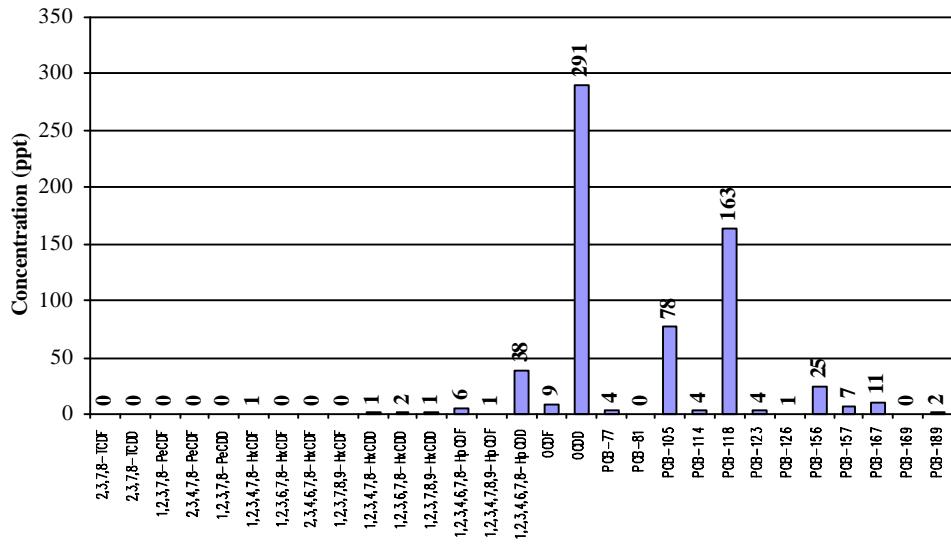


## Appendix B4. Congener Profiles for QC Samples

Sample 256 Ref-F-24 PE Clean

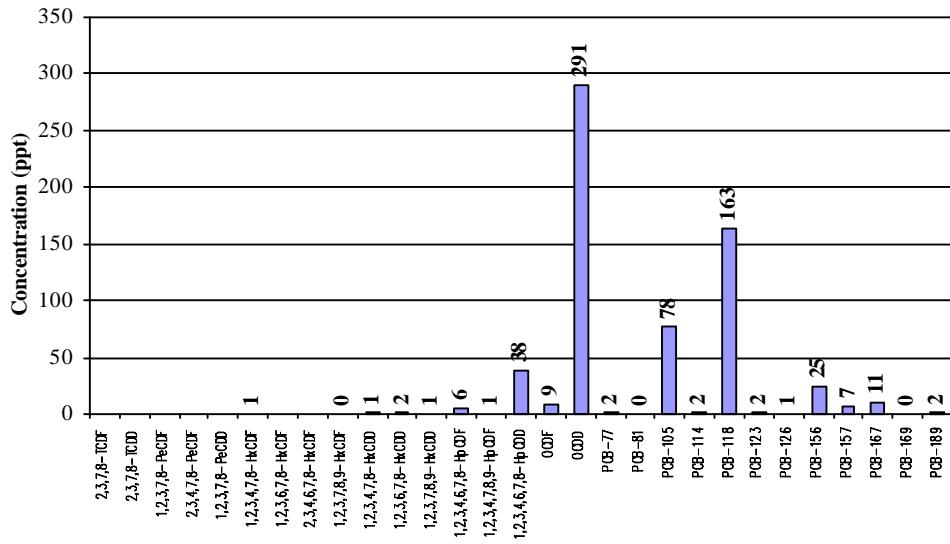
## Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



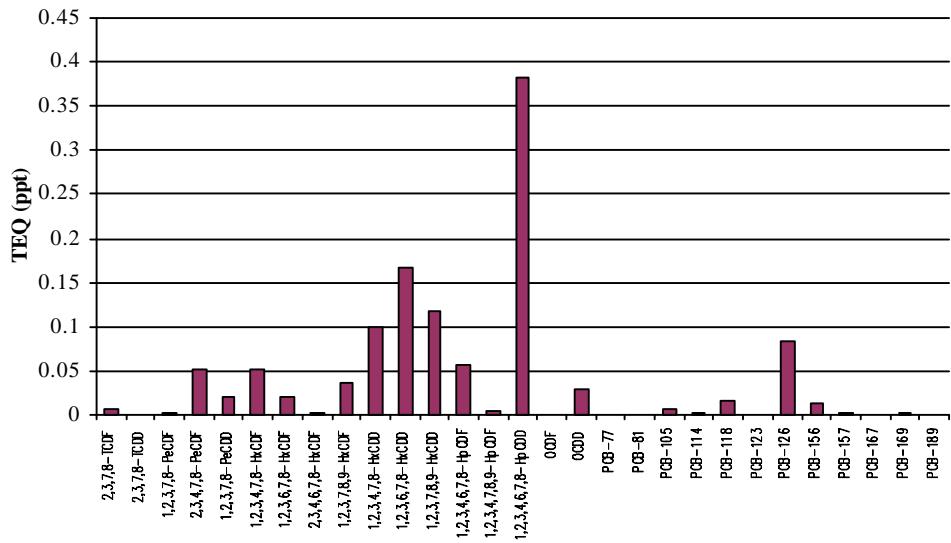
## Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



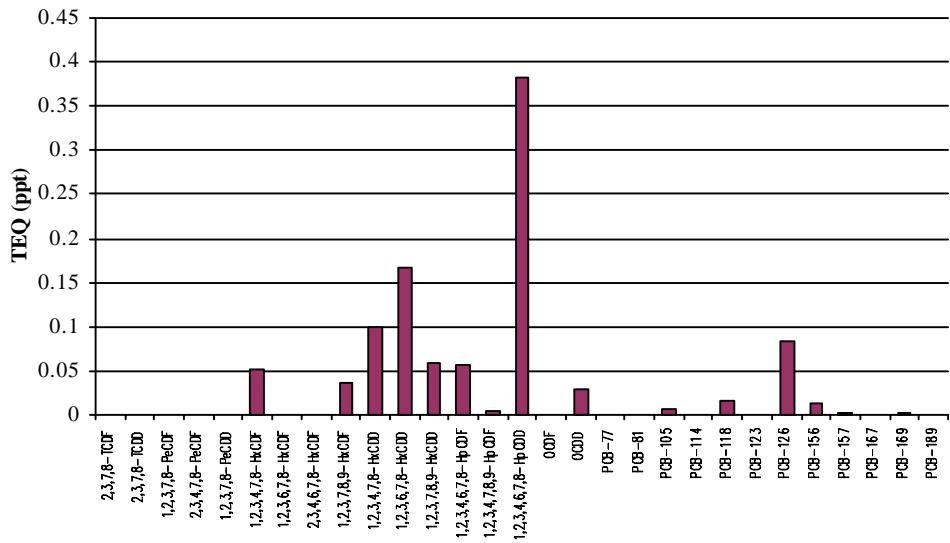
## Full TEQs: Congener Profile

(Full Data Set With Proxies = 1/2 DL)

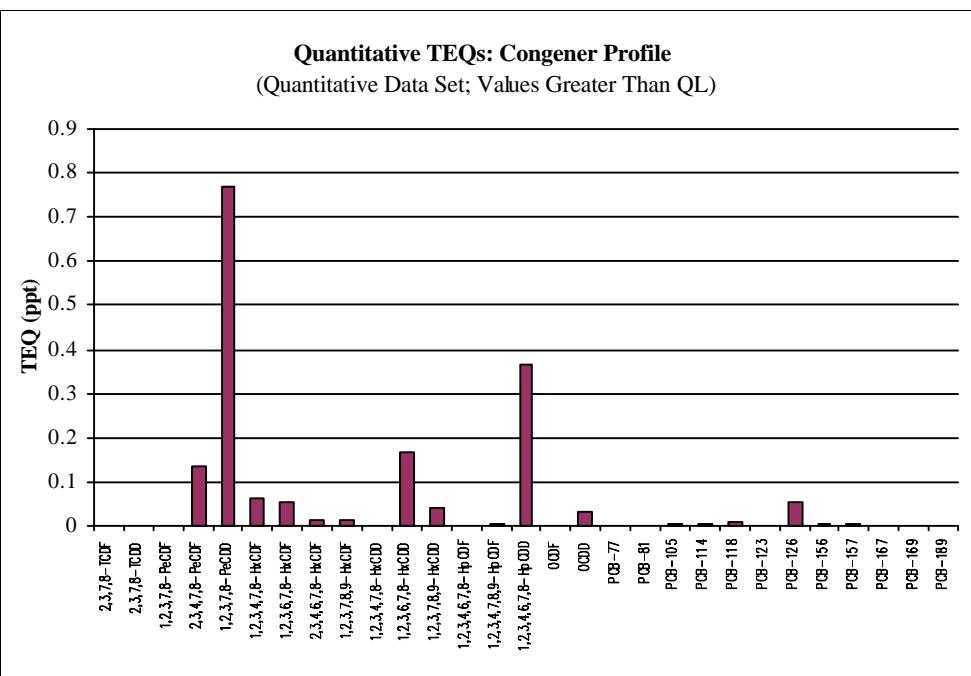
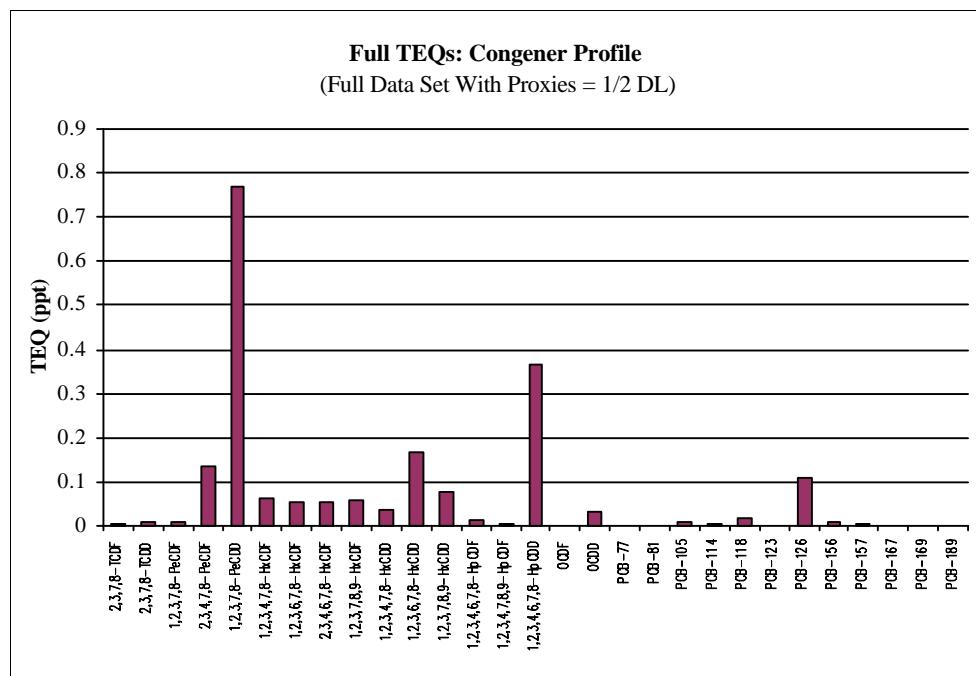
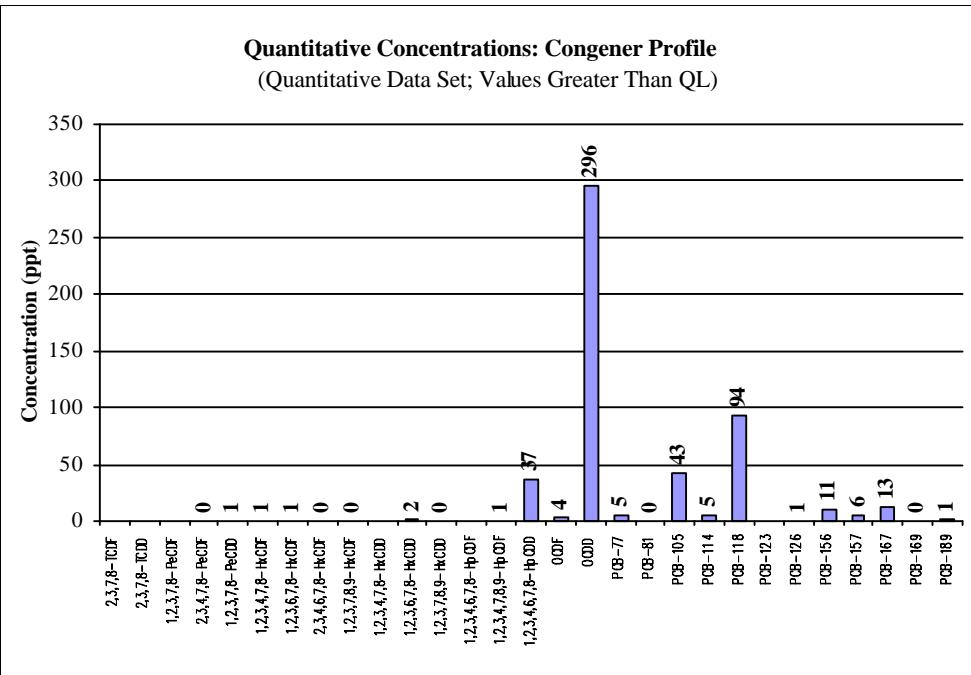
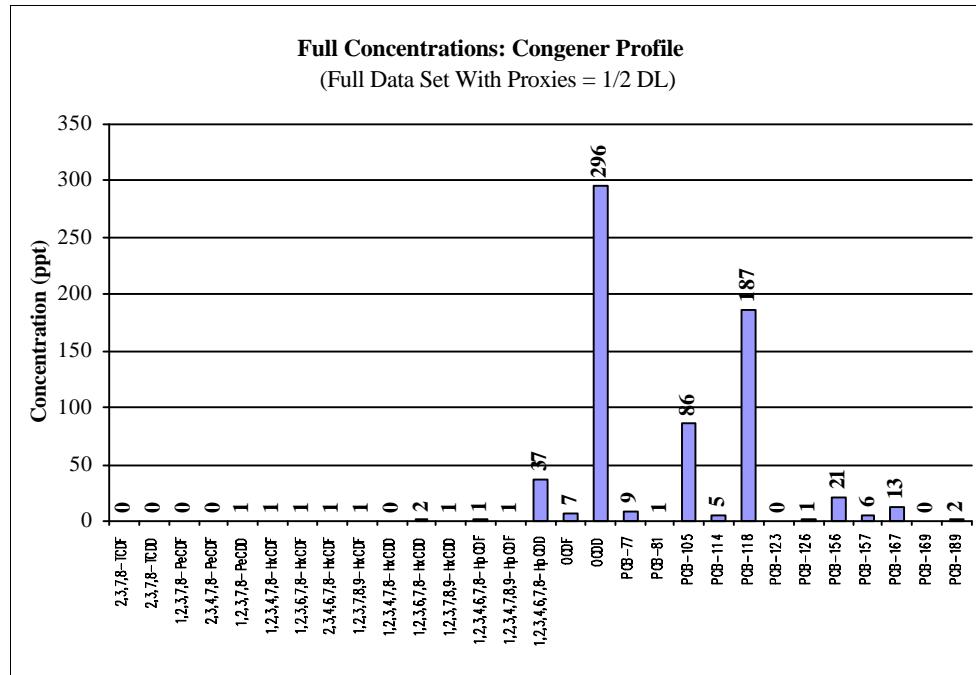


## Quantitative TEQs: Congener Profile

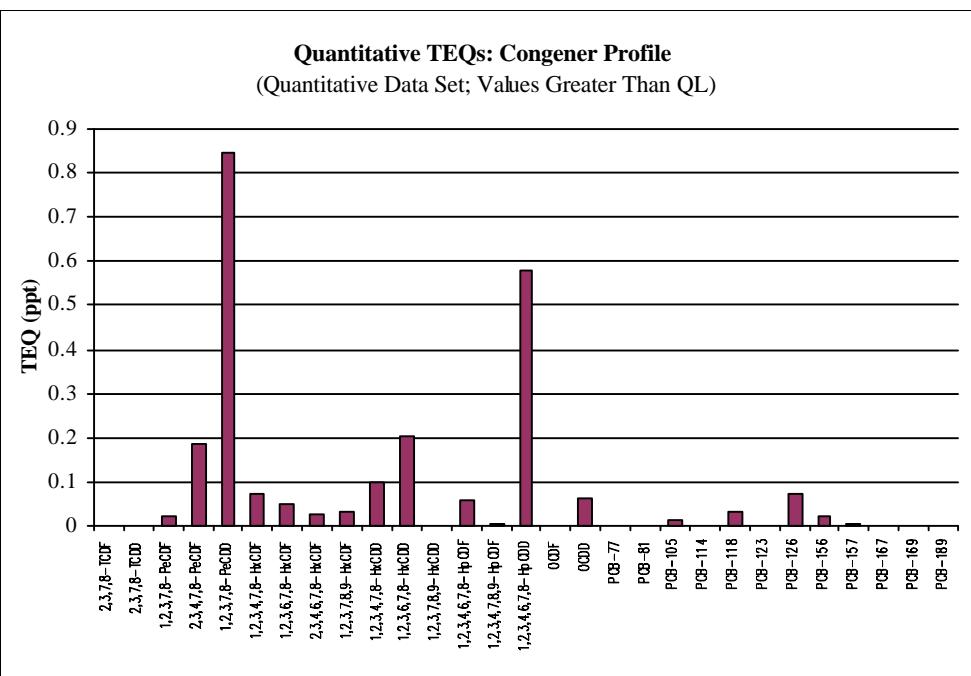
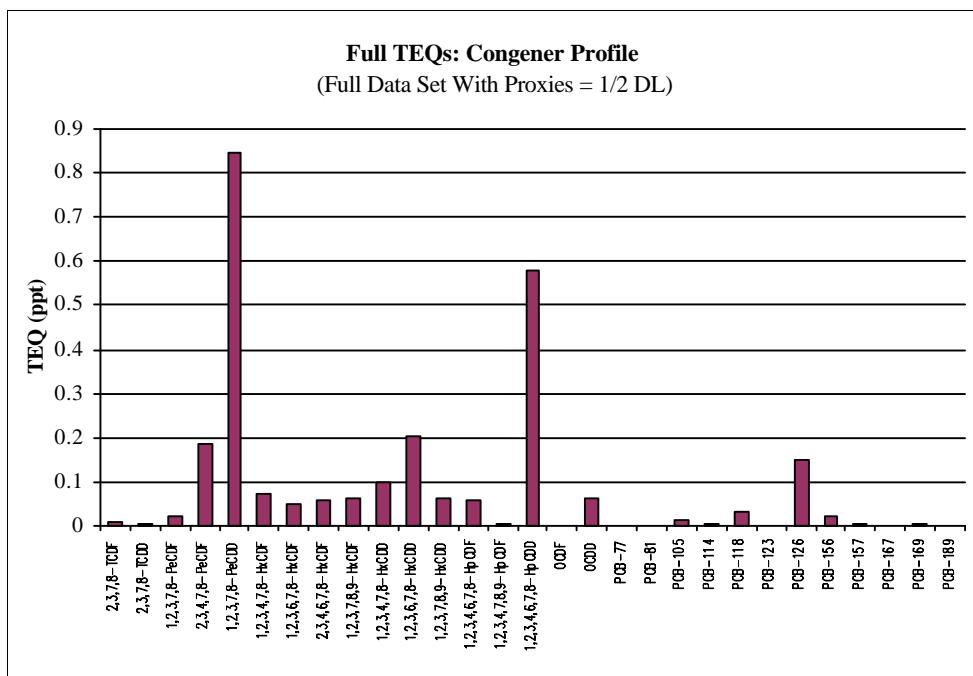
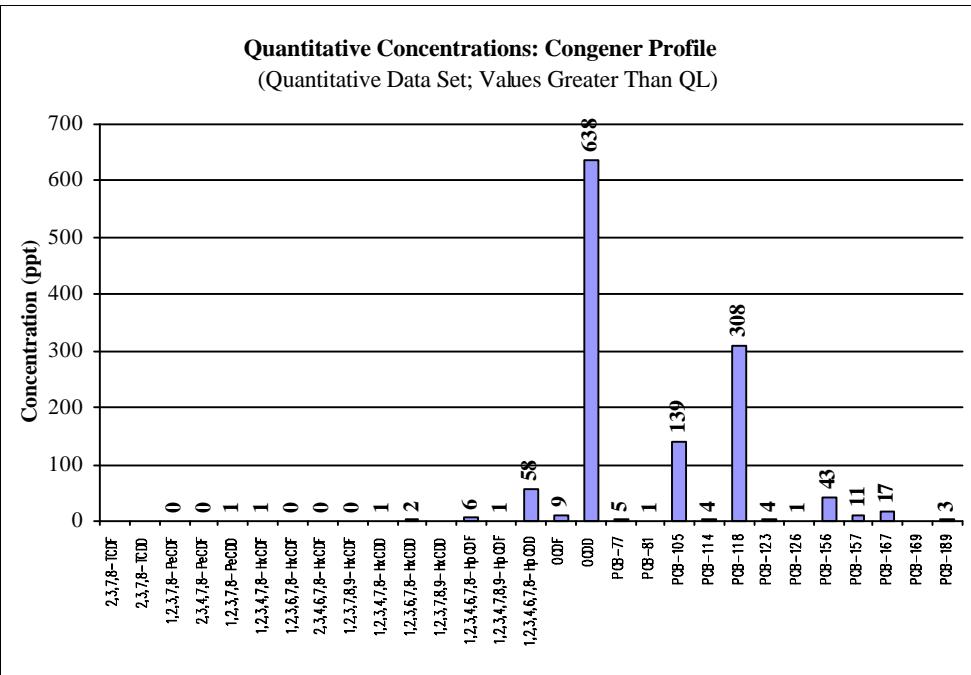
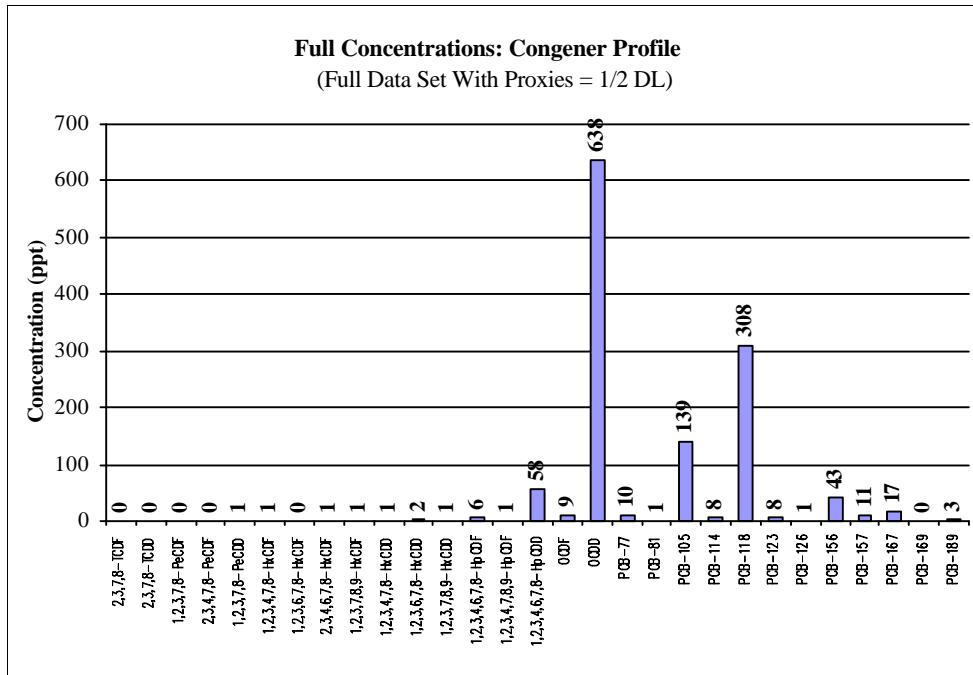
(Quantitative Data Set; Values Greater Than QL)



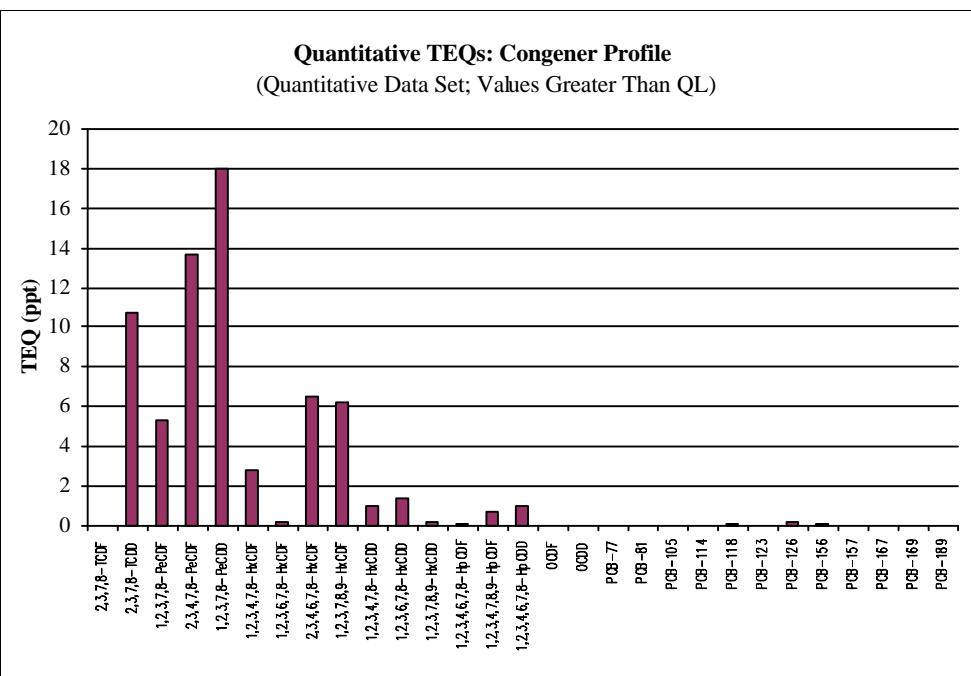
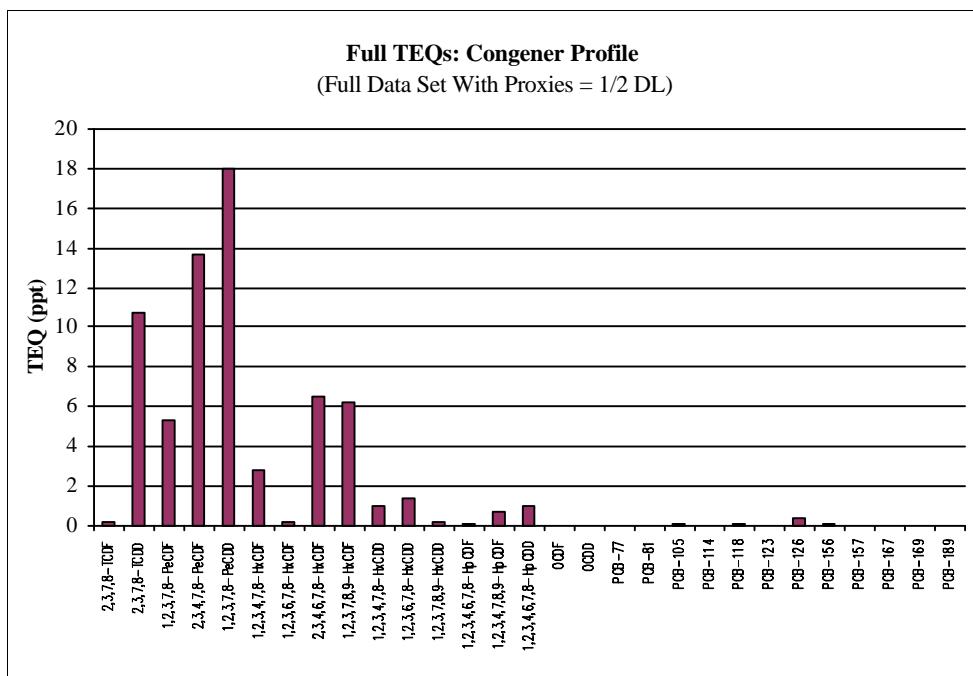
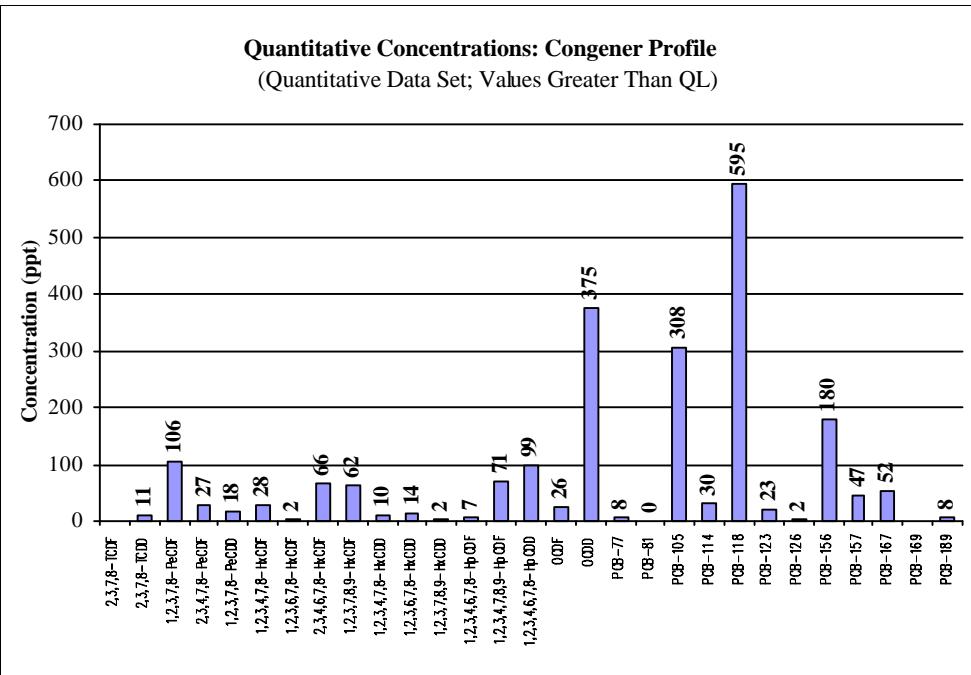
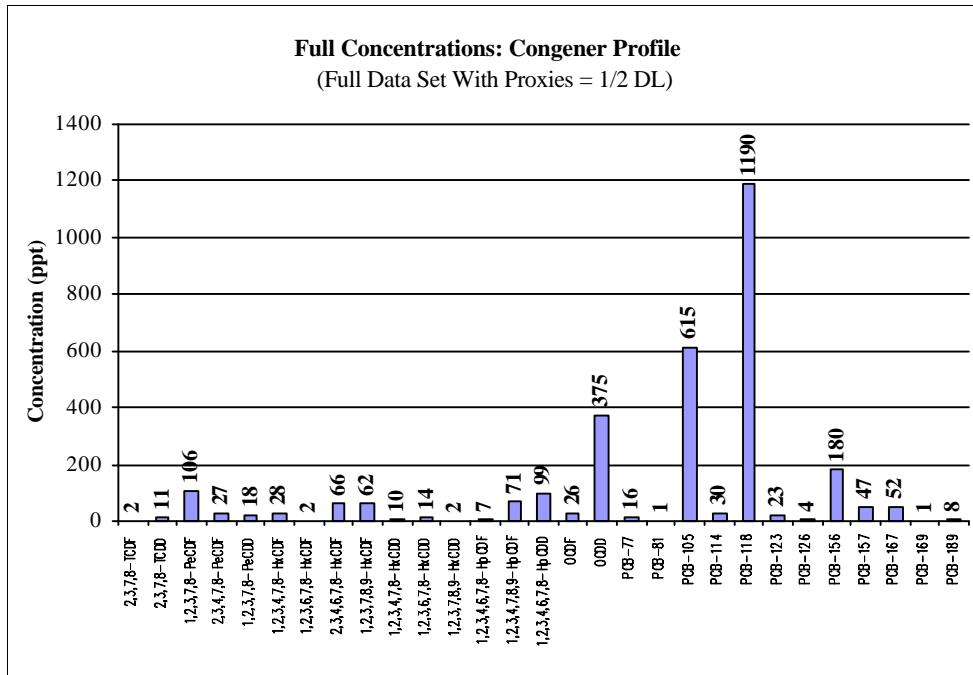
*Sample*      339      *Ref-F-27 PE Clean*



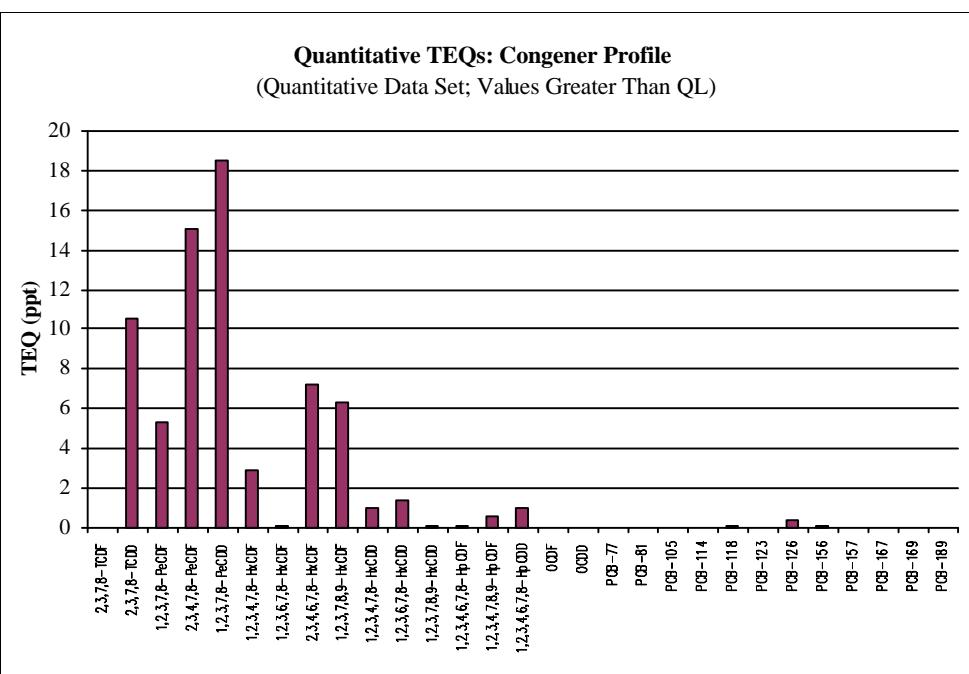
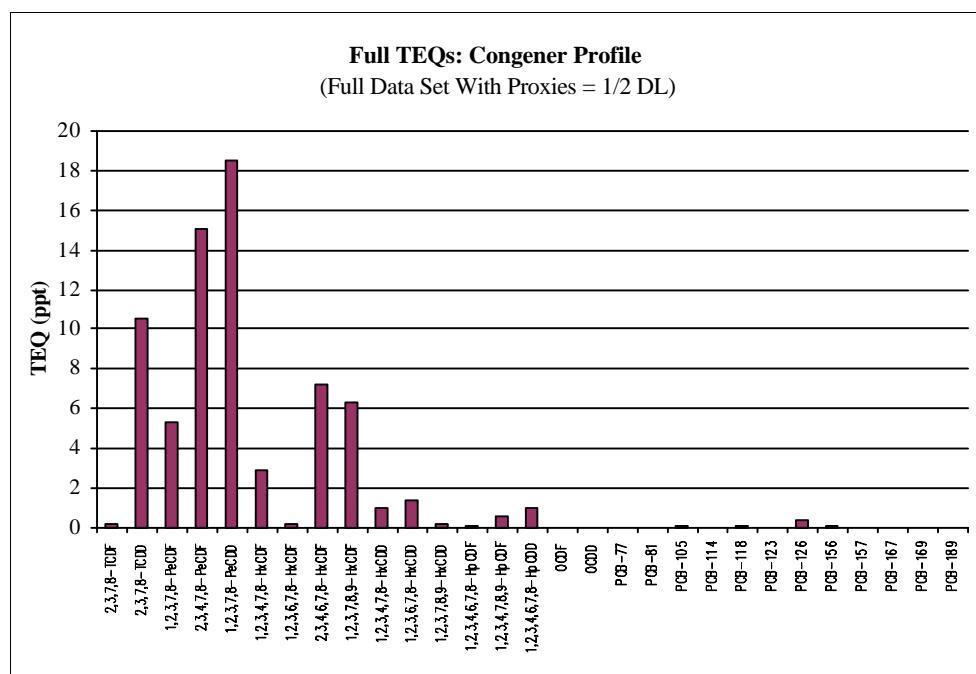
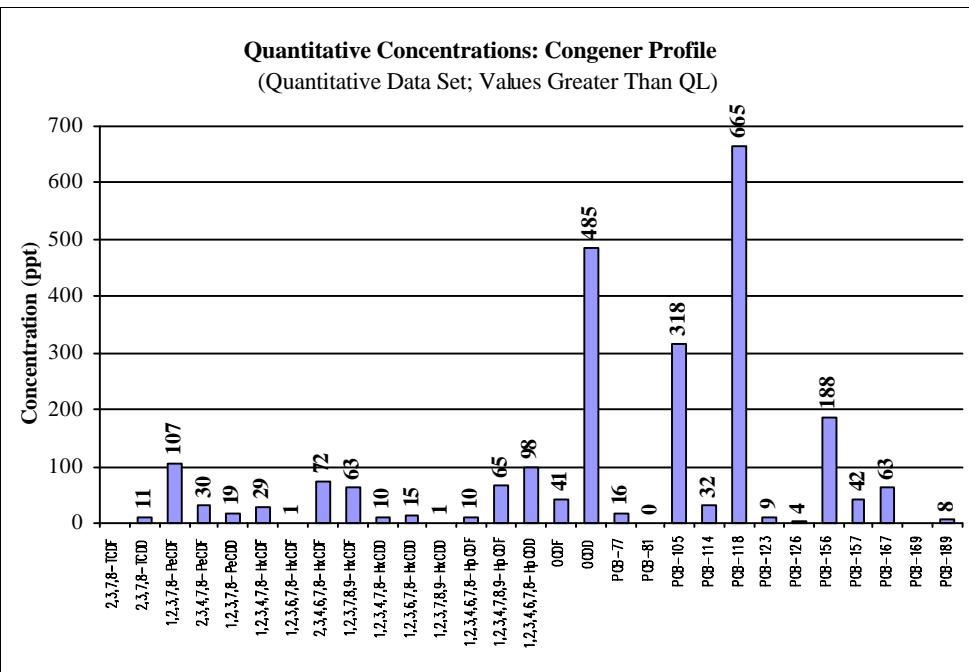
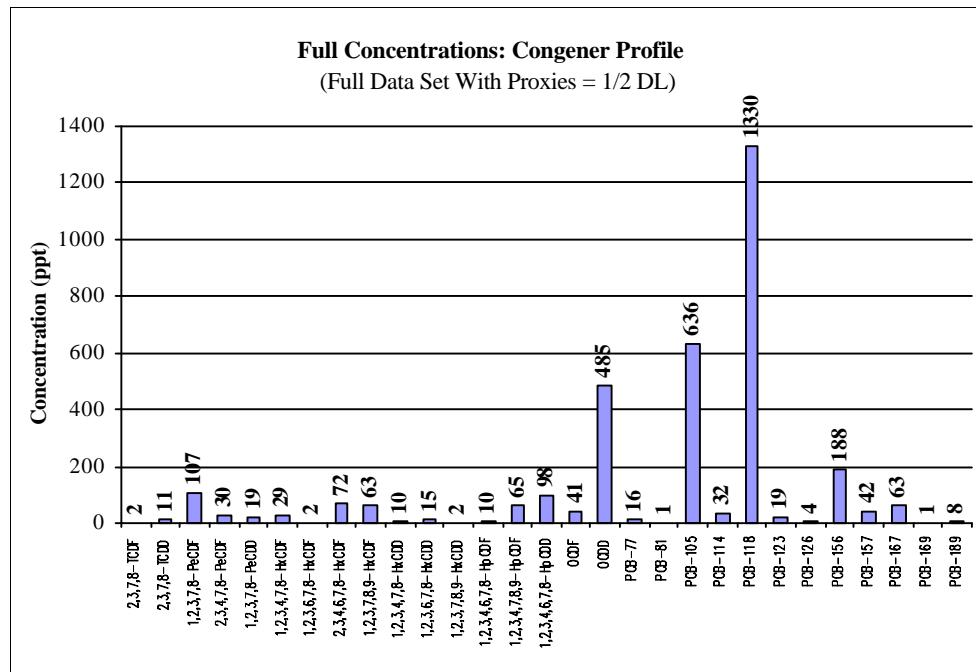
*Sample*      **681**      *blank*      *PE Clean*



*Sample* 263 PEL-F-11 PE Low Std

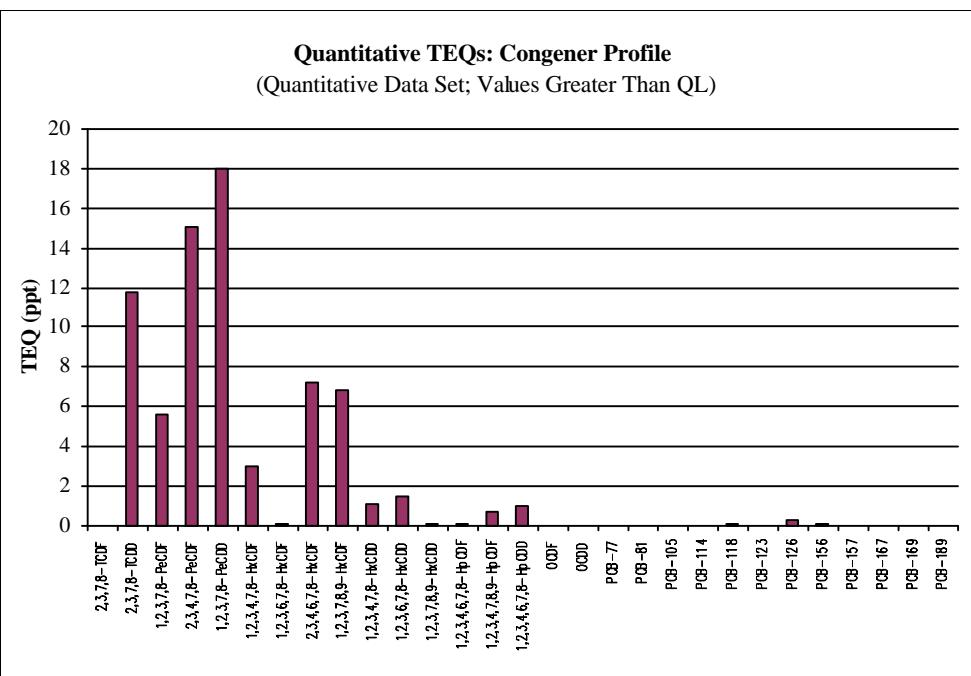
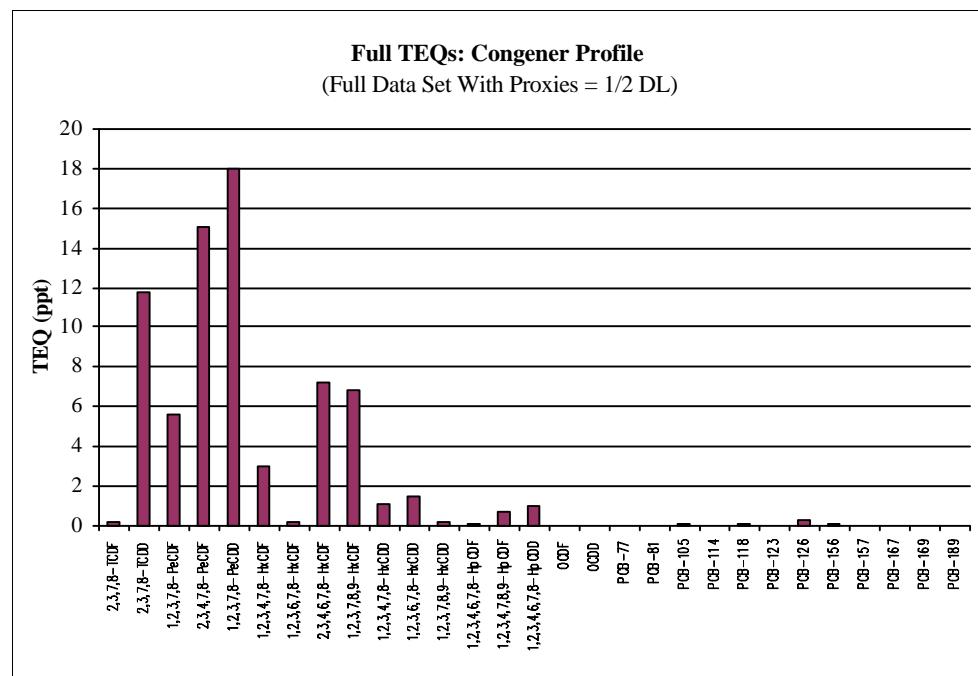
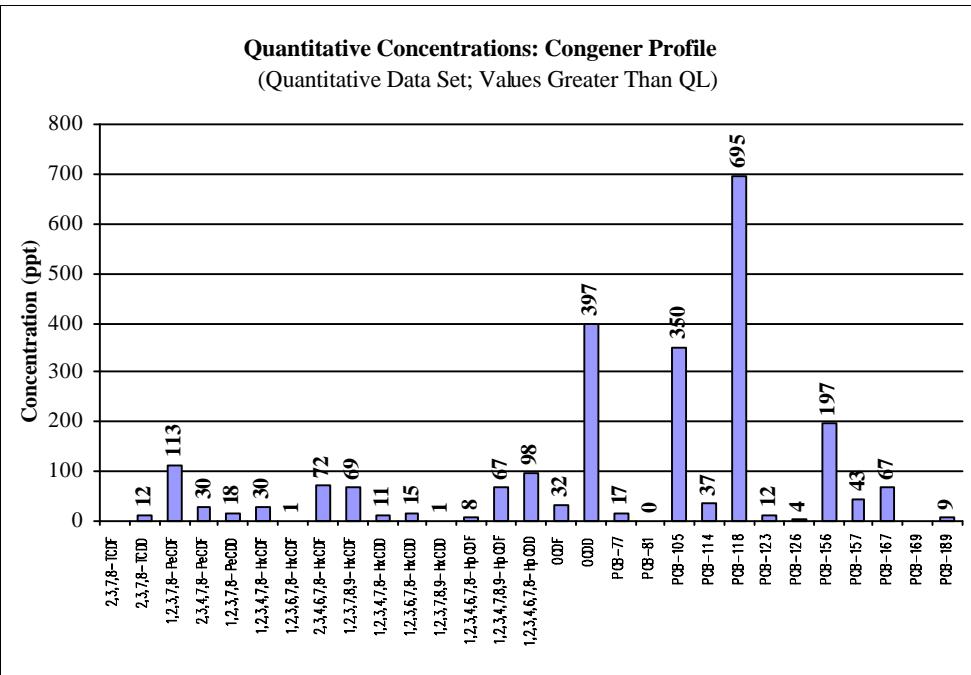
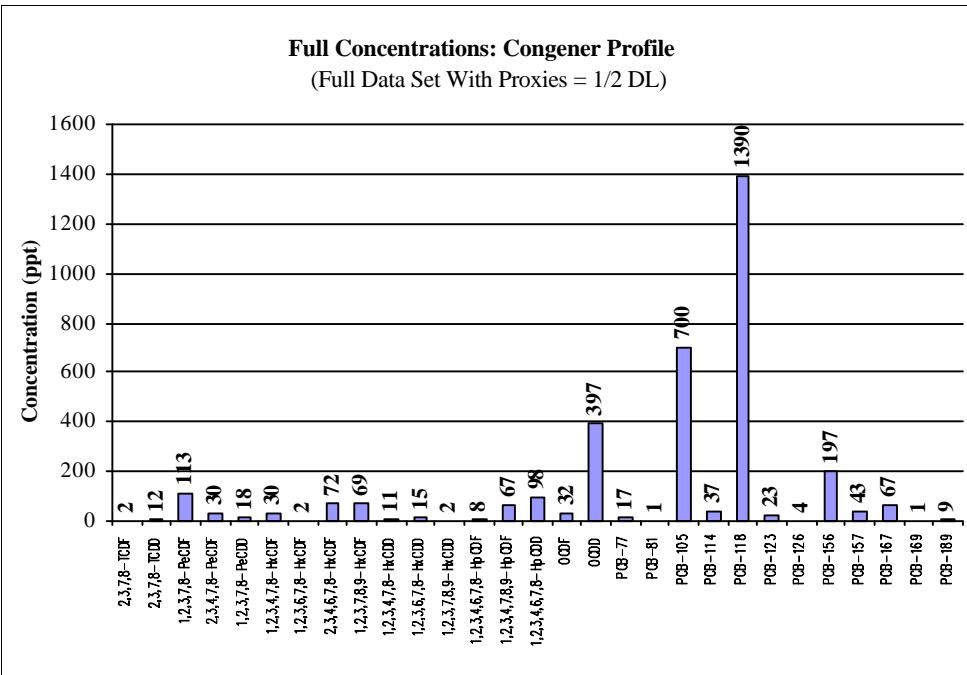


*Sample* 498 PEL-F-12 PE Low Std

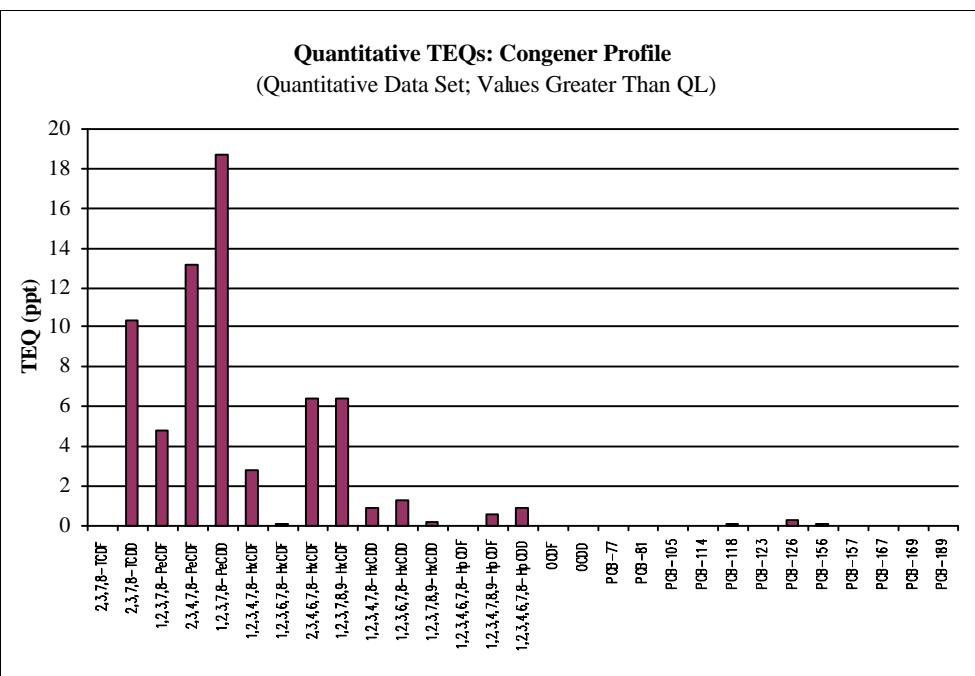
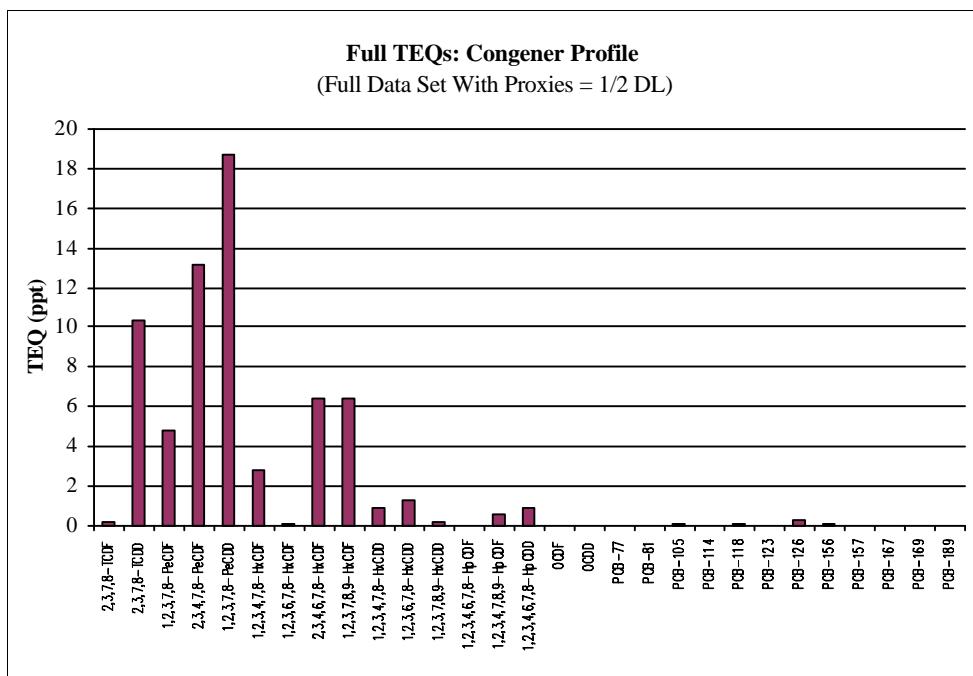
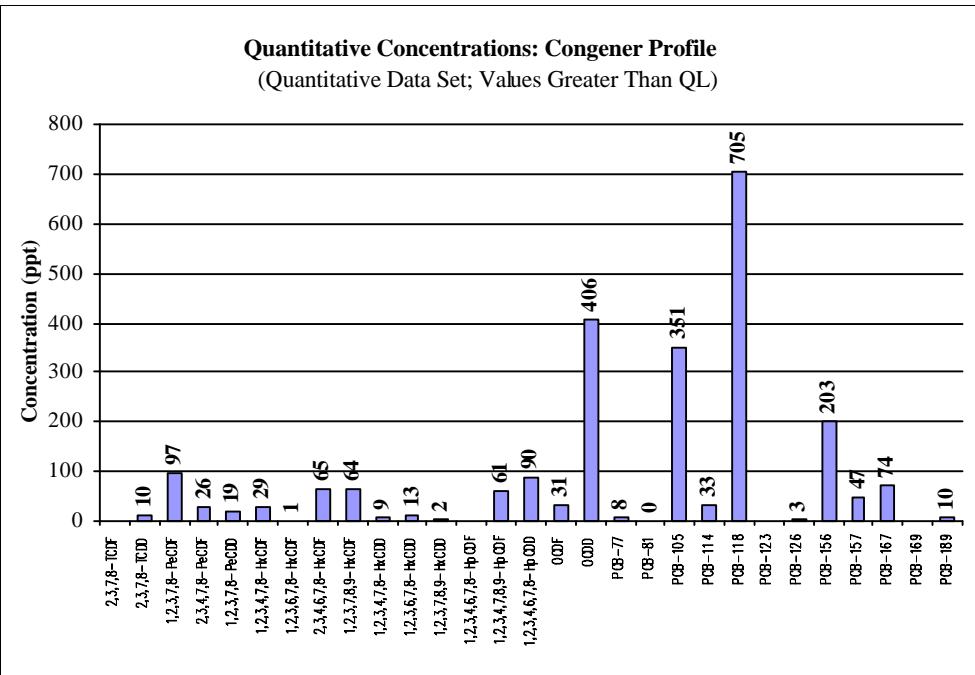
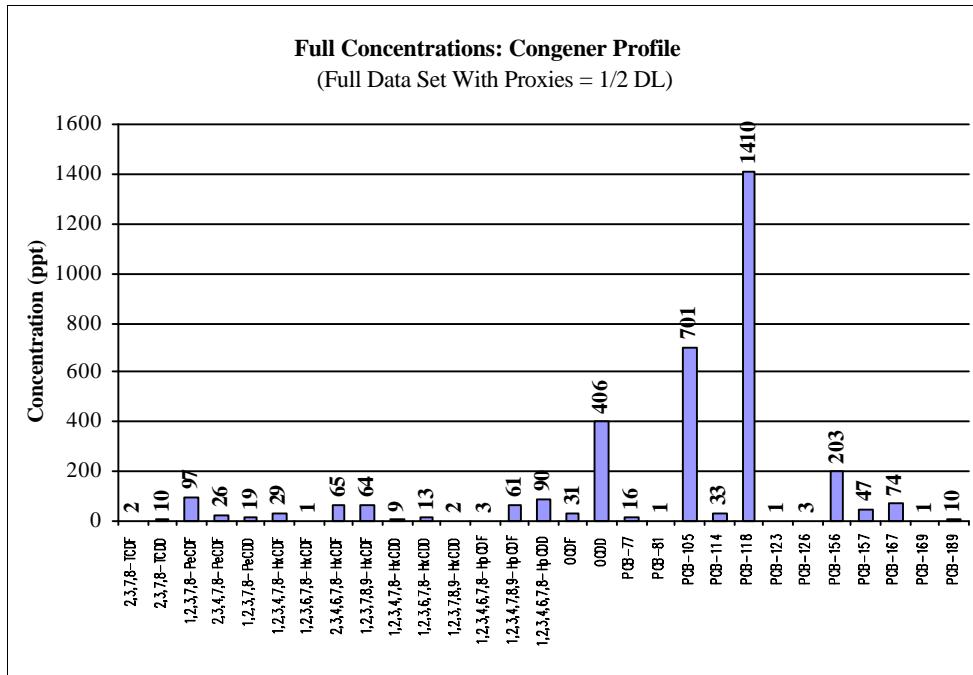


*Sample*      **757-R**      **PEL-F-7**    **PE Low Std**

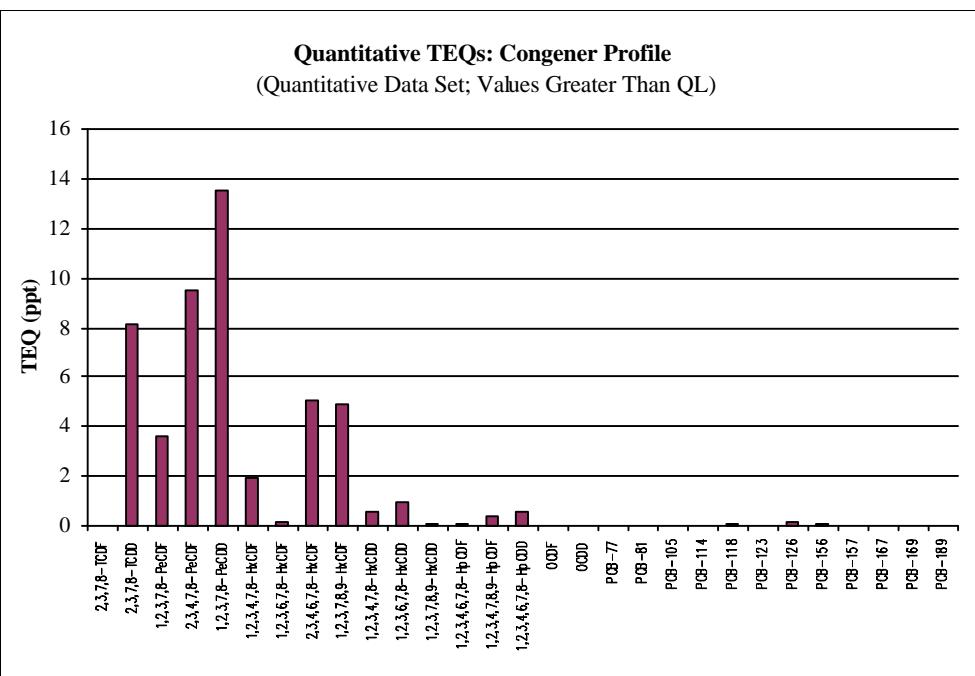
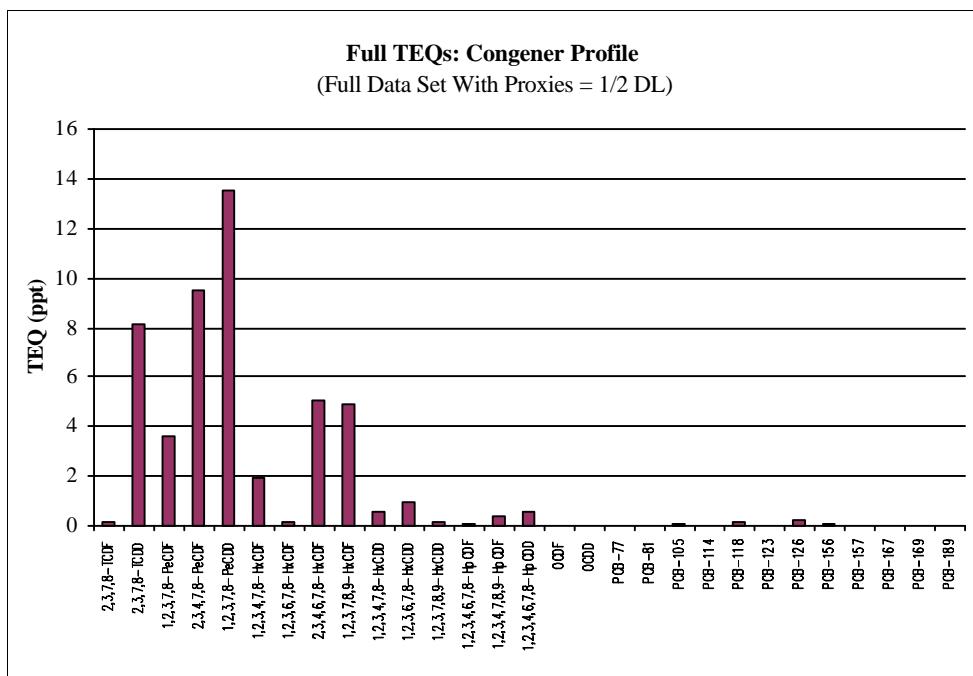
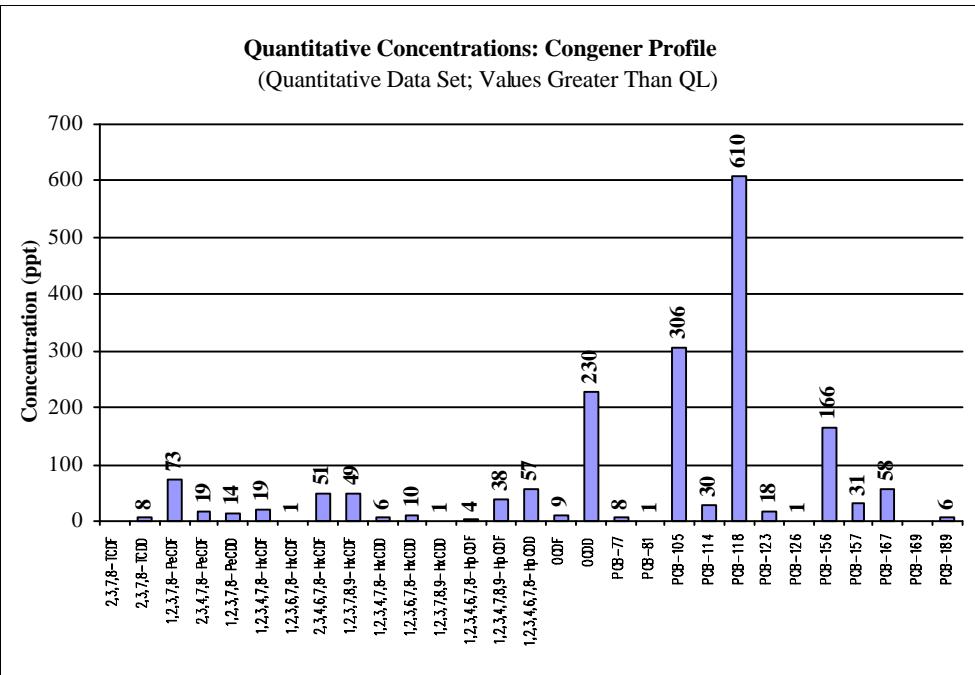
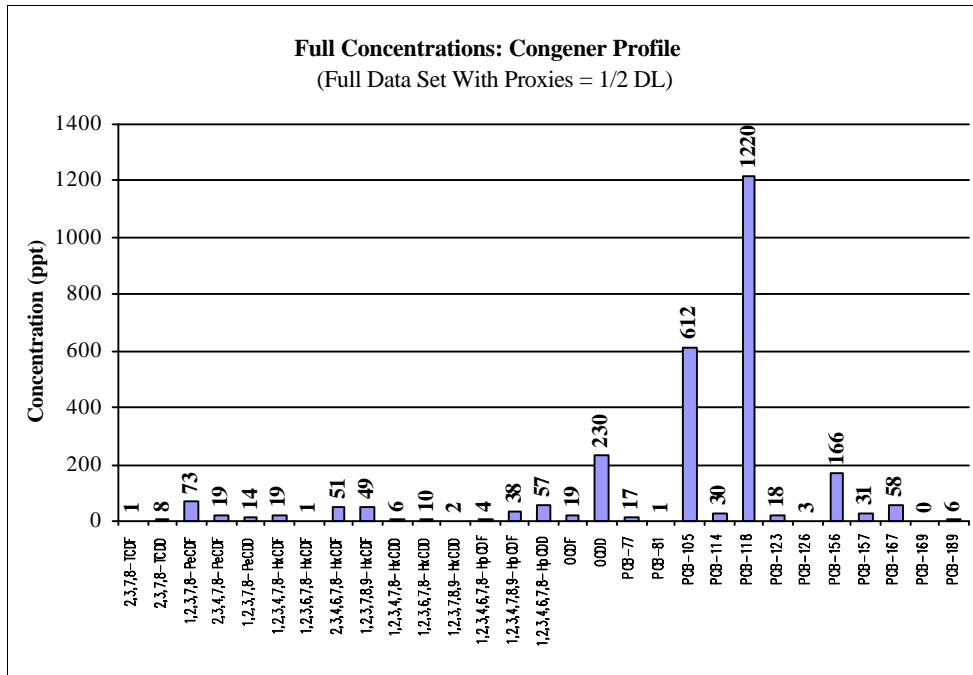
Replacement sample for (757) which was lost by MRI; EPA batch C, sent w/ off-post



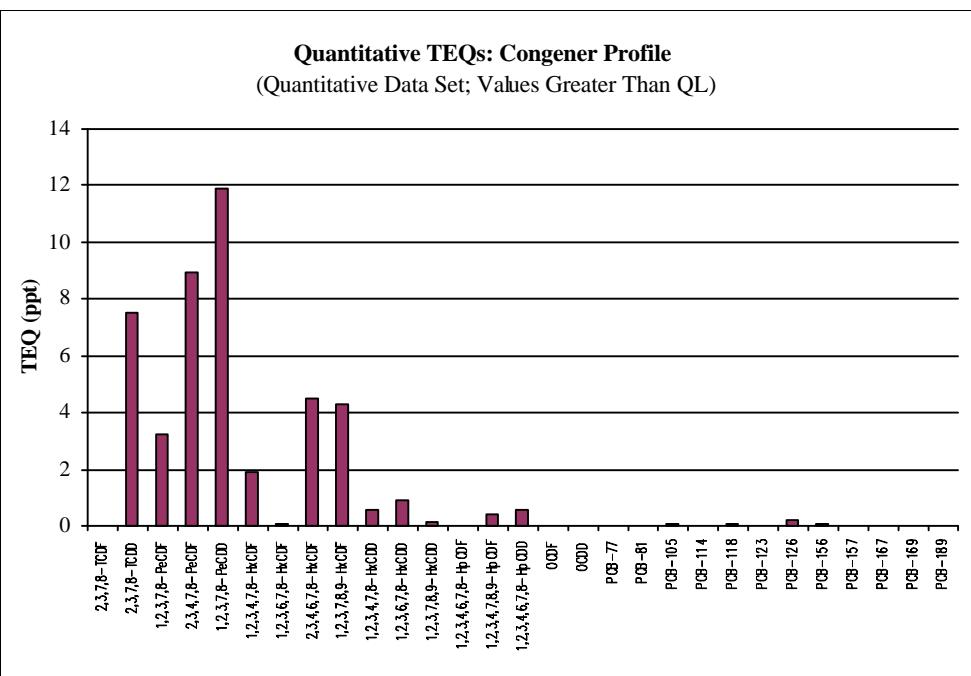
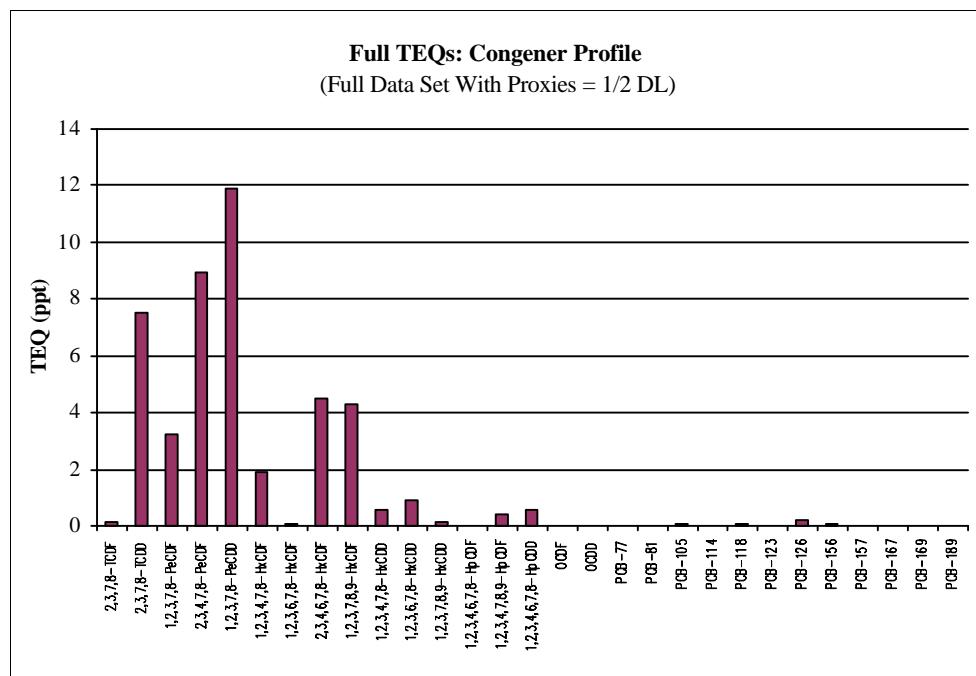
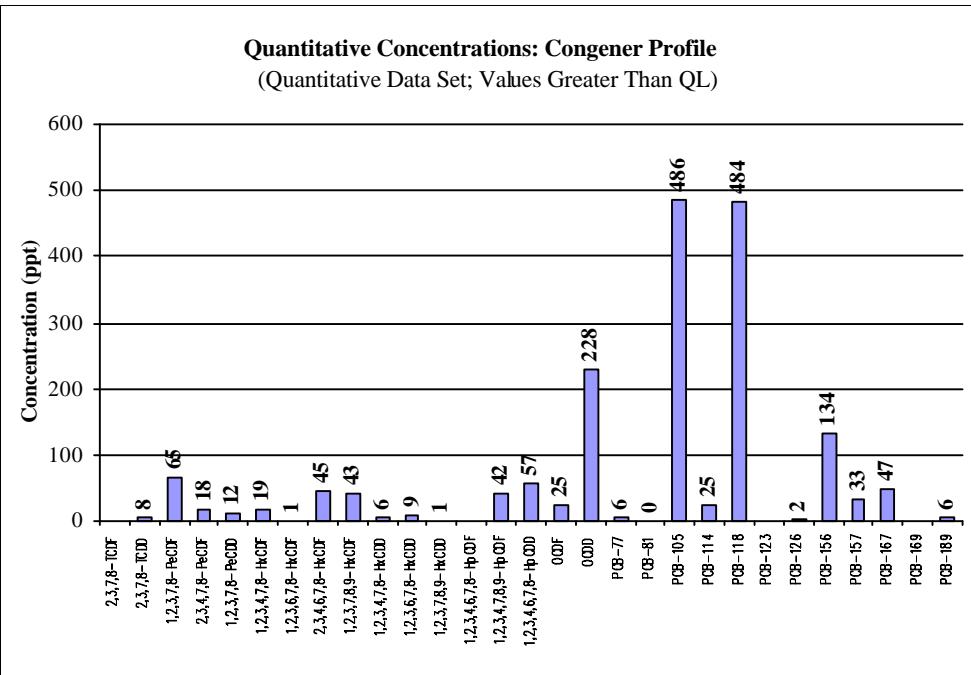
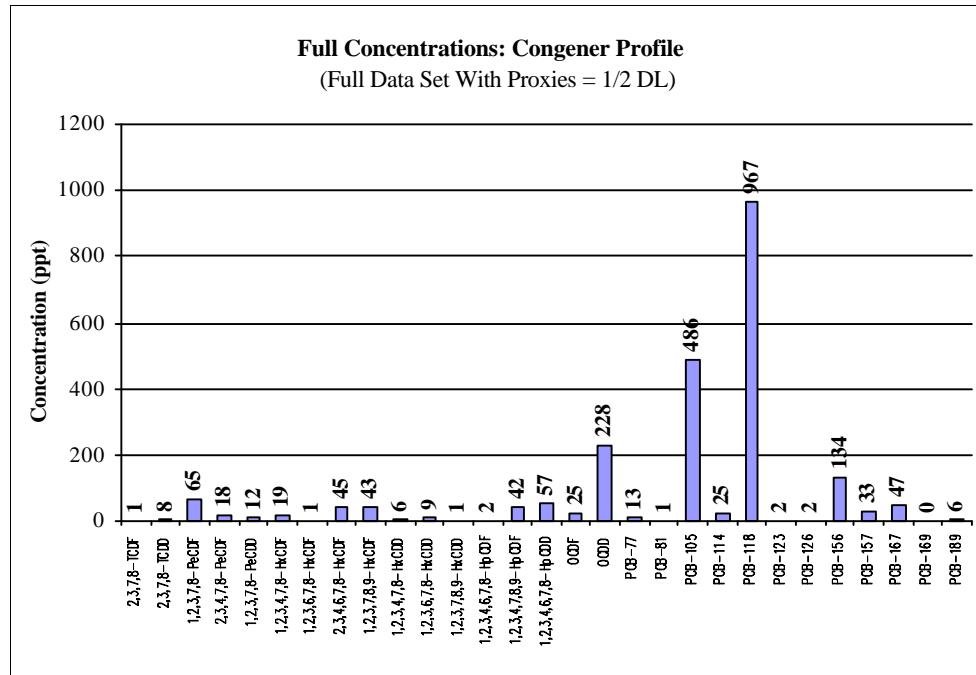
*Sample* 943 PEL-F-10 PE Low Std



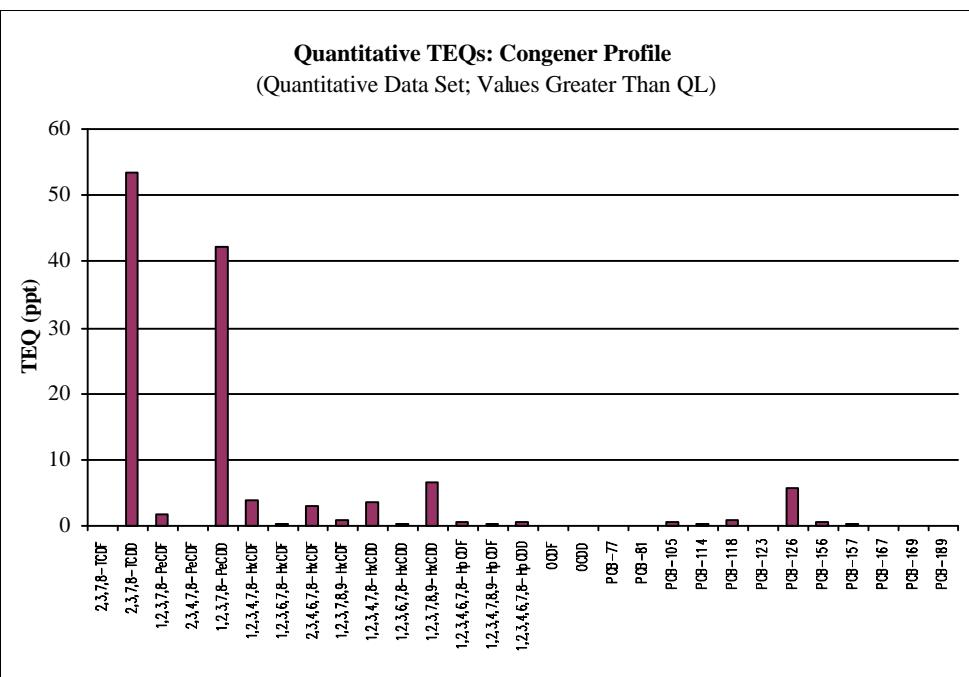
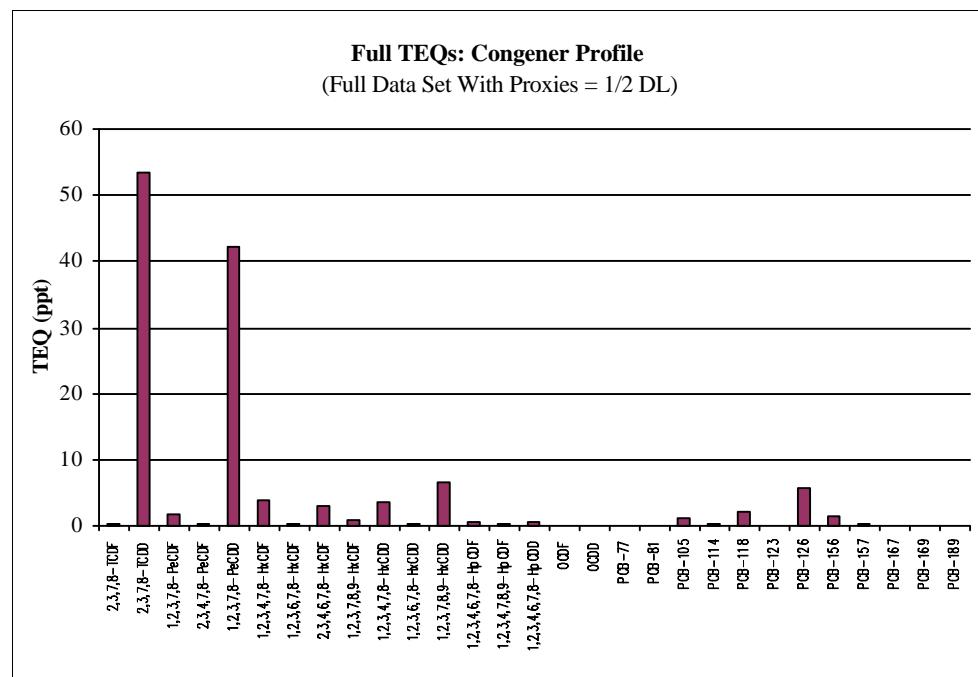
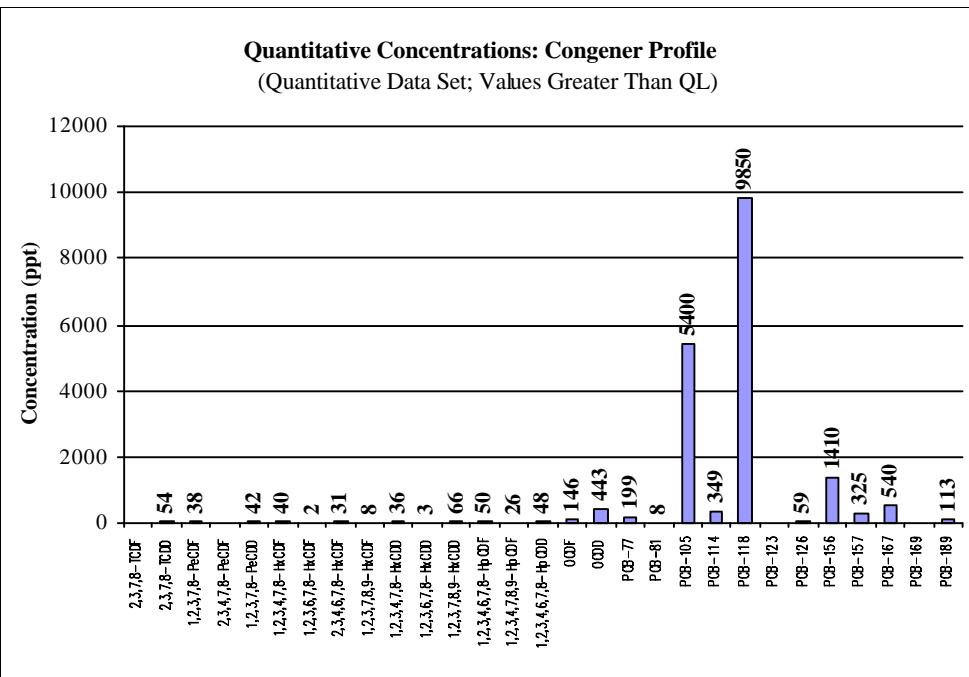
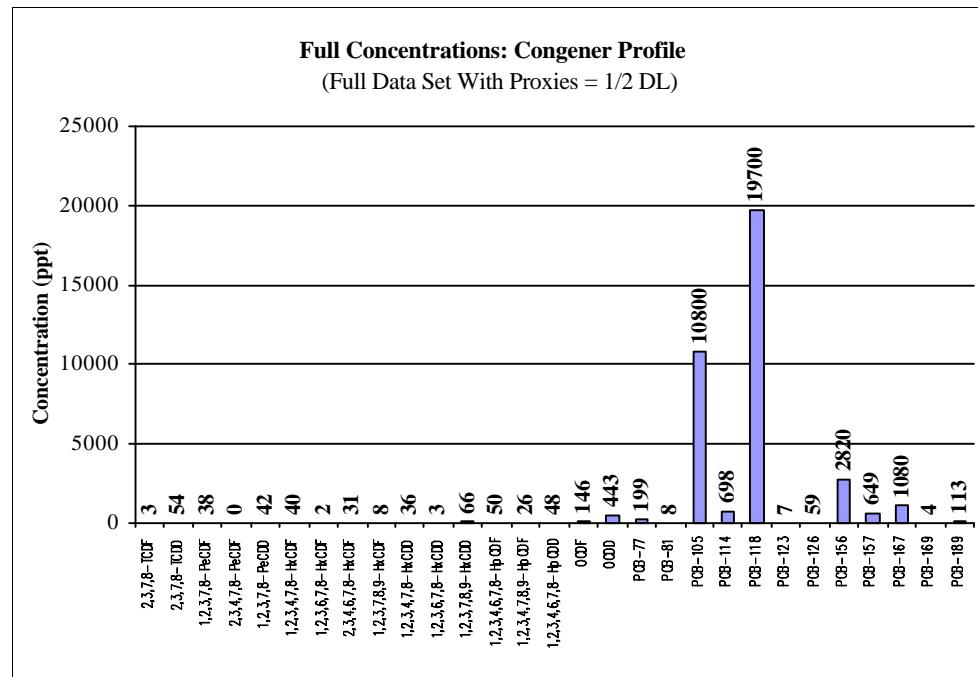
*Sample*    *PC00268*    *PEL*    *PE Low Std*



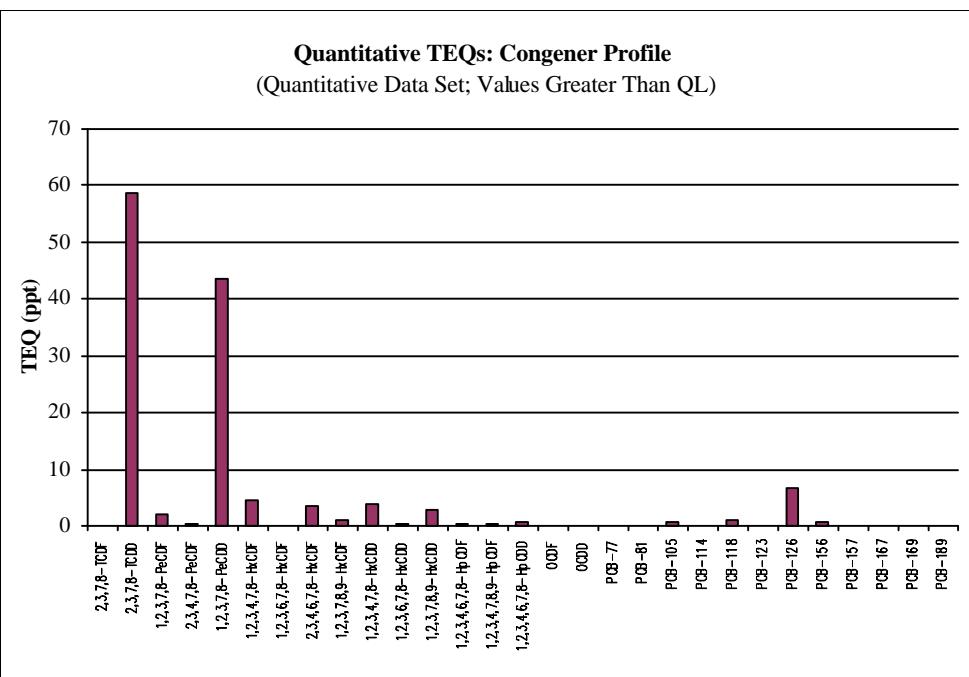
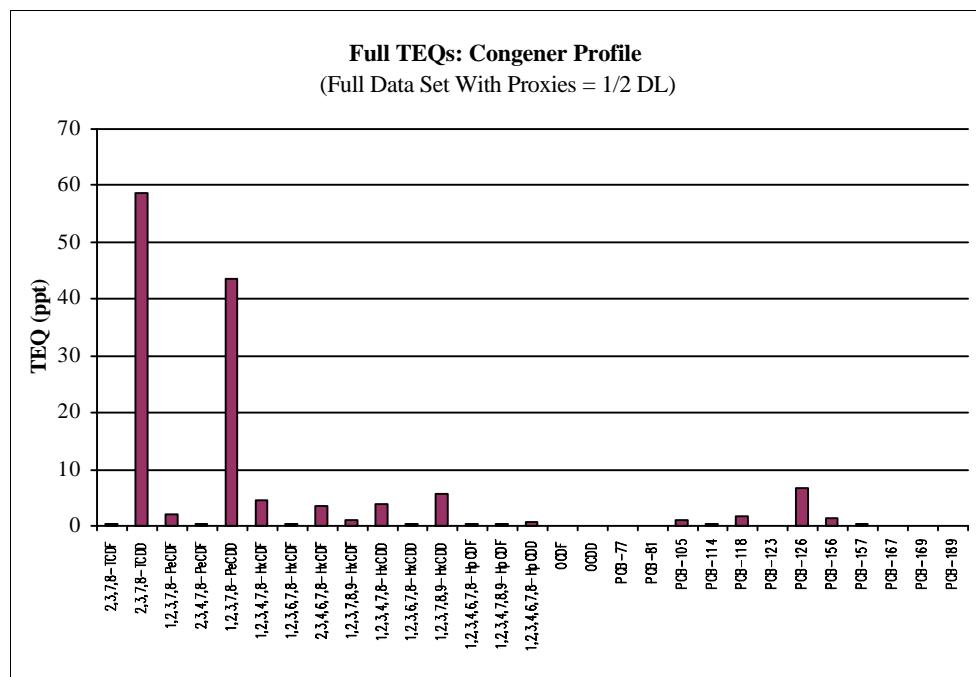
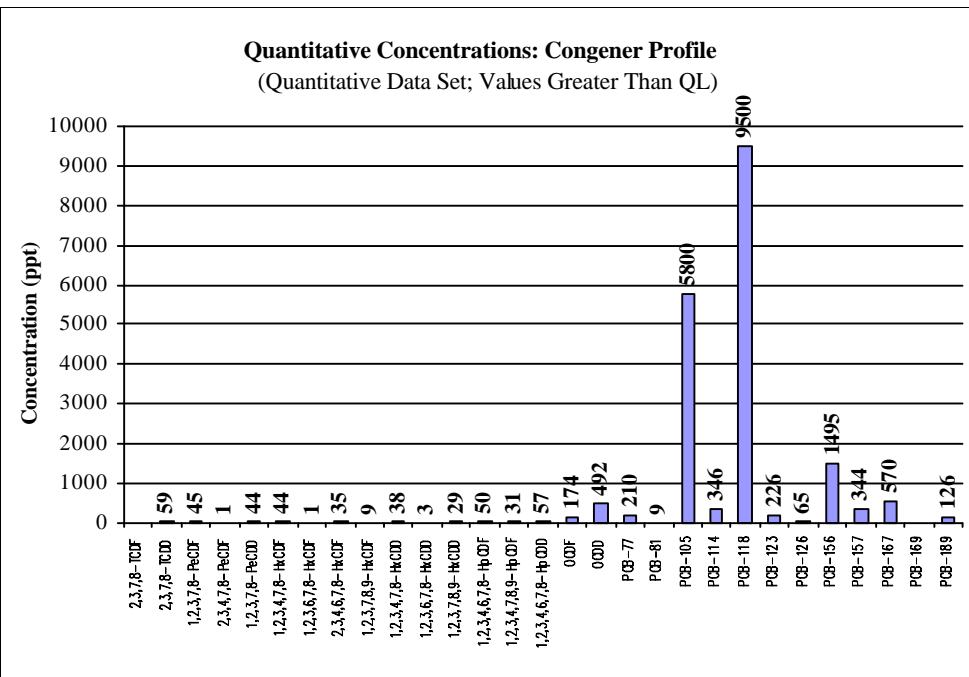
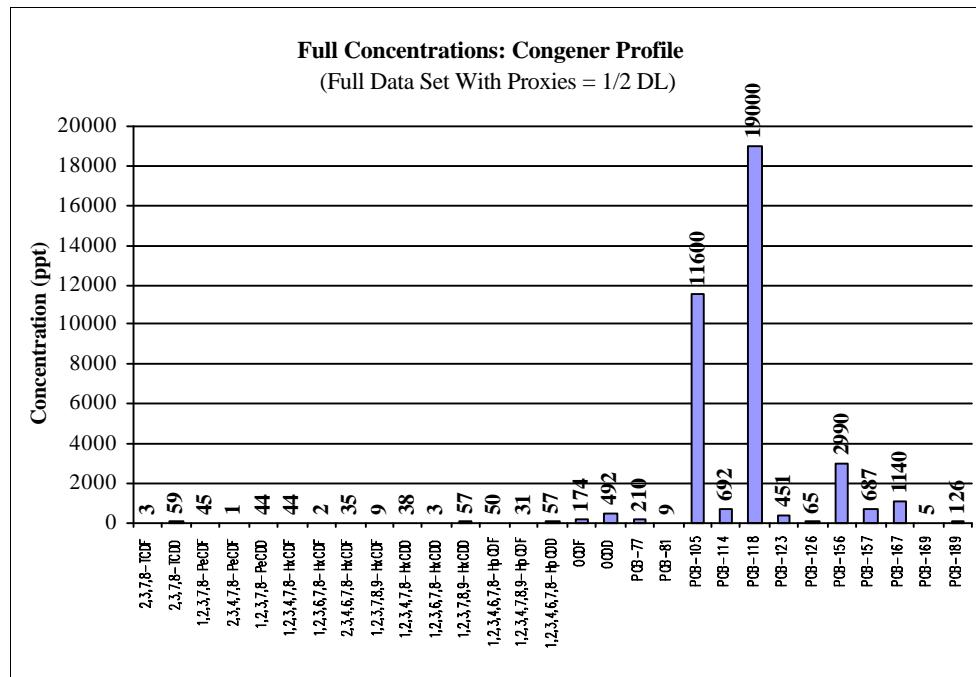
*Sample*    **PC00359**    **PEL**    **PE Low Std**



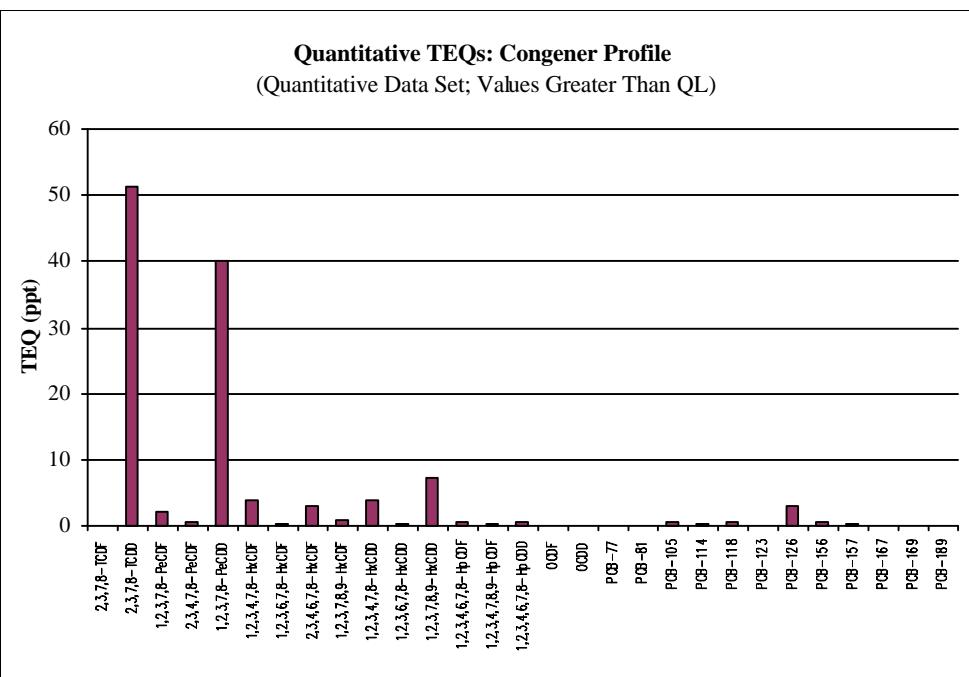
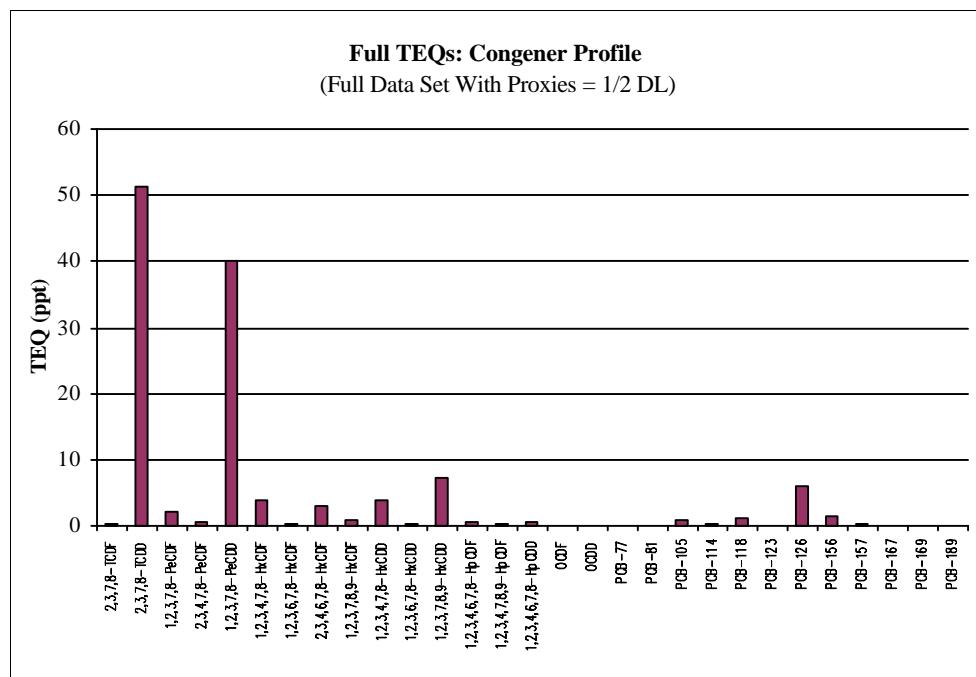
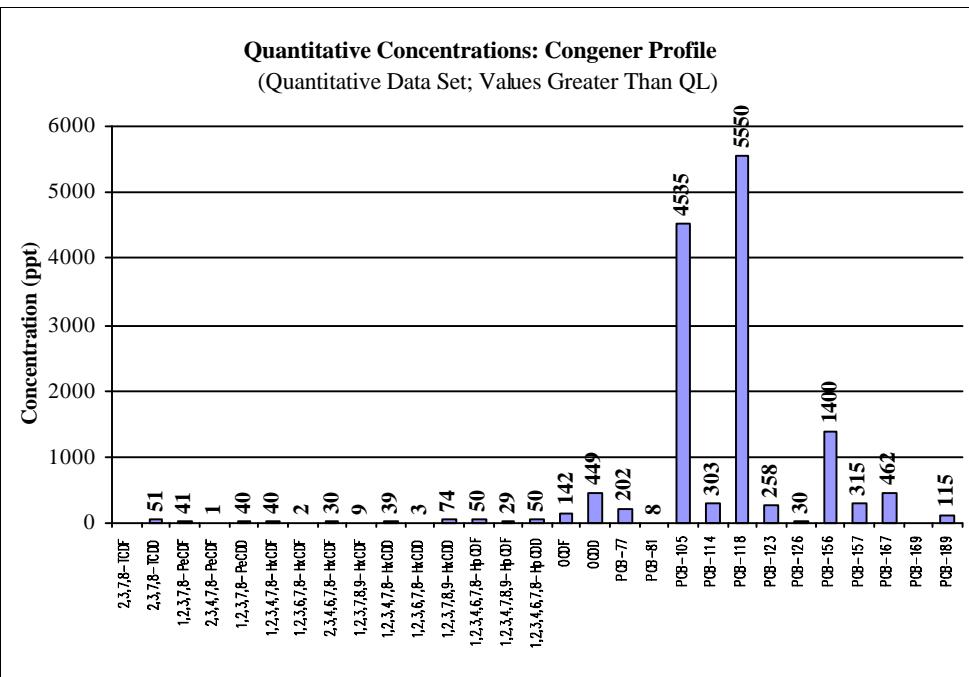
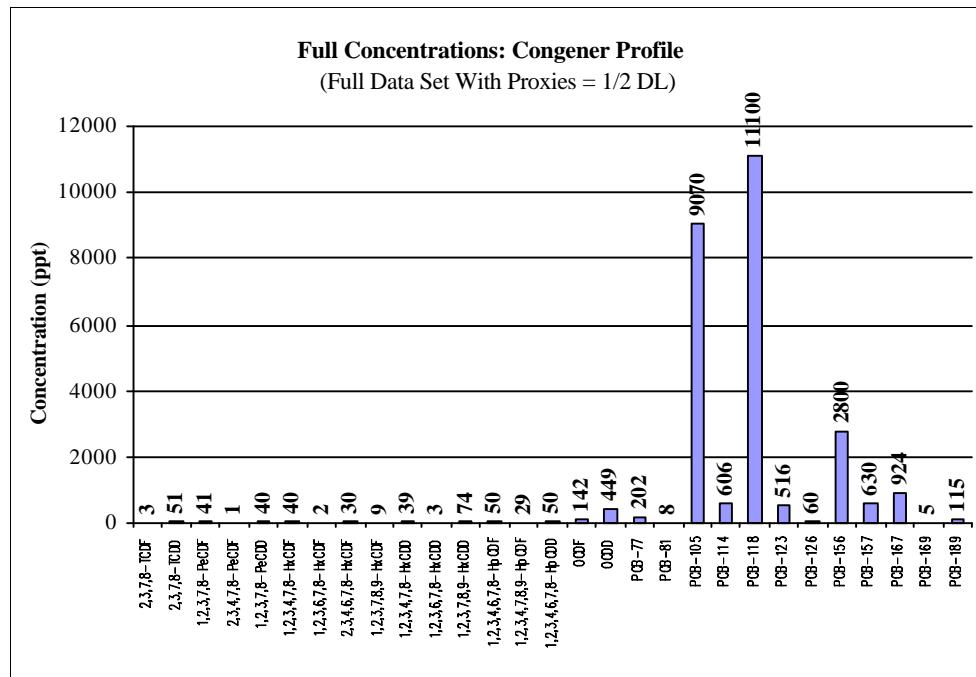
*Sample*      201      **PEM-F-10 PE Med Std**



*Sample* 351 **PEM-F-12 PE Med Std**



*Sample* 688 **PEM-F-11 PE Med Std**

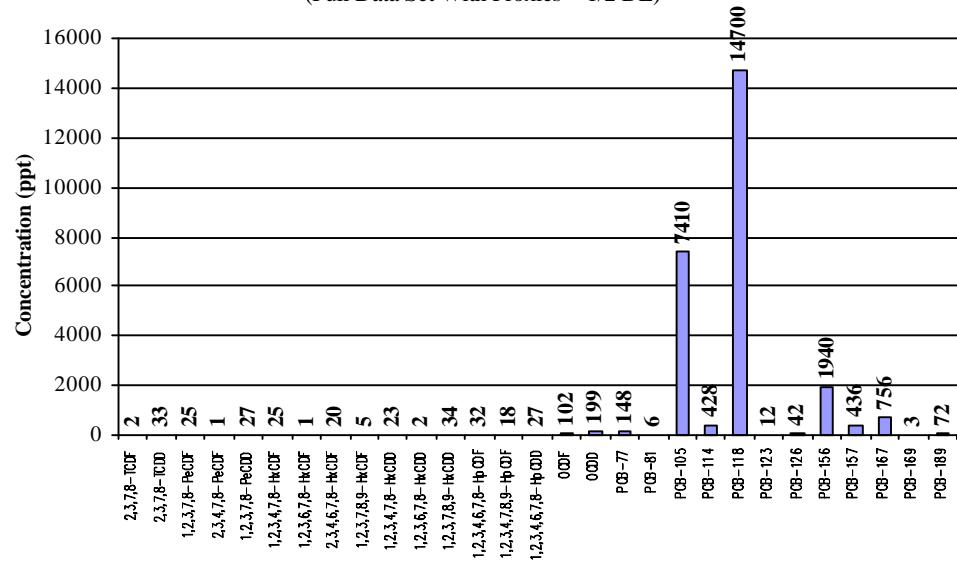


**Appendix B4. Congener Profiles for QC Samples**

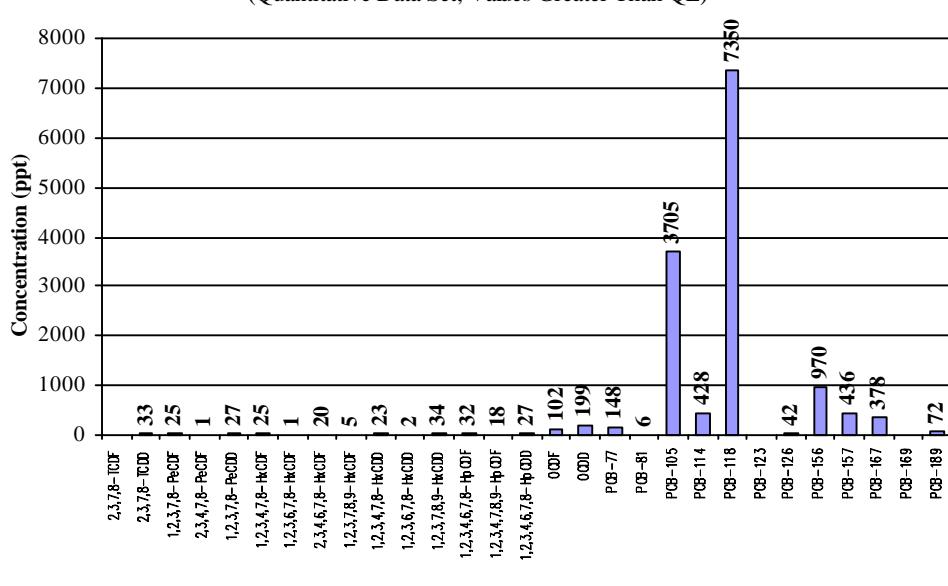
*Sample*    *PC00807*    *PEM*    *PE Med Std*

**Full Concentrations: Congener Profile**

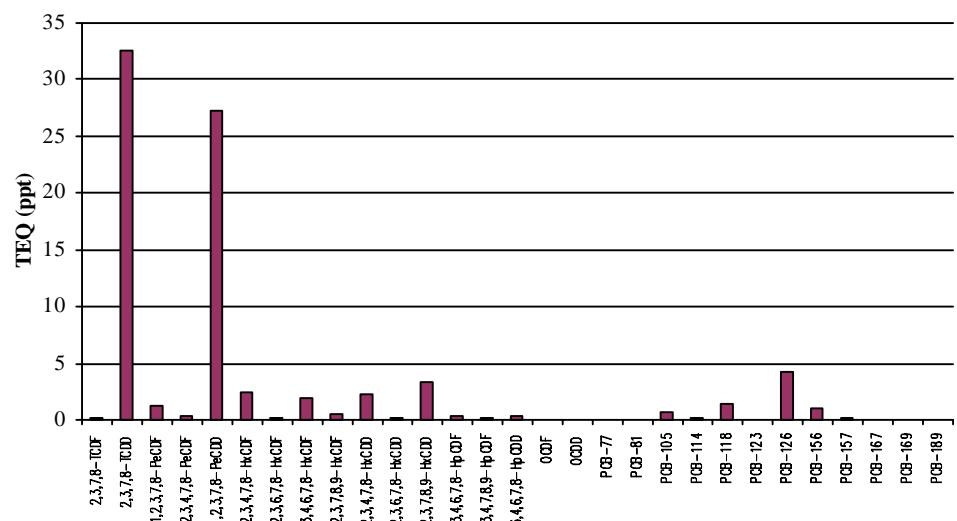
(Full Data Set With Proxies = 1/2 DL)

**Quantitative Concentrations: Congener Profile**

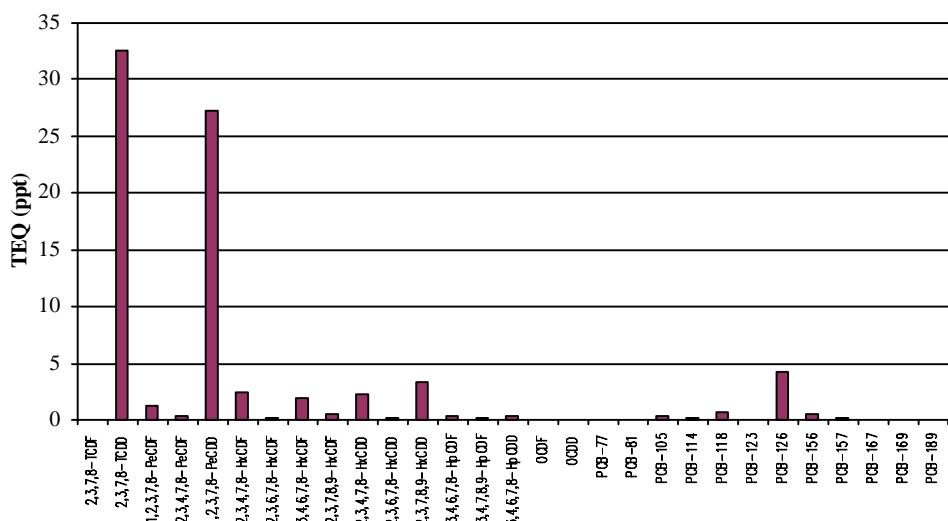
(Quantitative Data Set; Values Greater Than QL)

**Full TEQs: Congener Profile**

(Full Data Set With Proxies = 1/2 DL)

**Quantitative TEQs: Congener Profile**

(Quantitative Data Set; Values Greater Than QL)

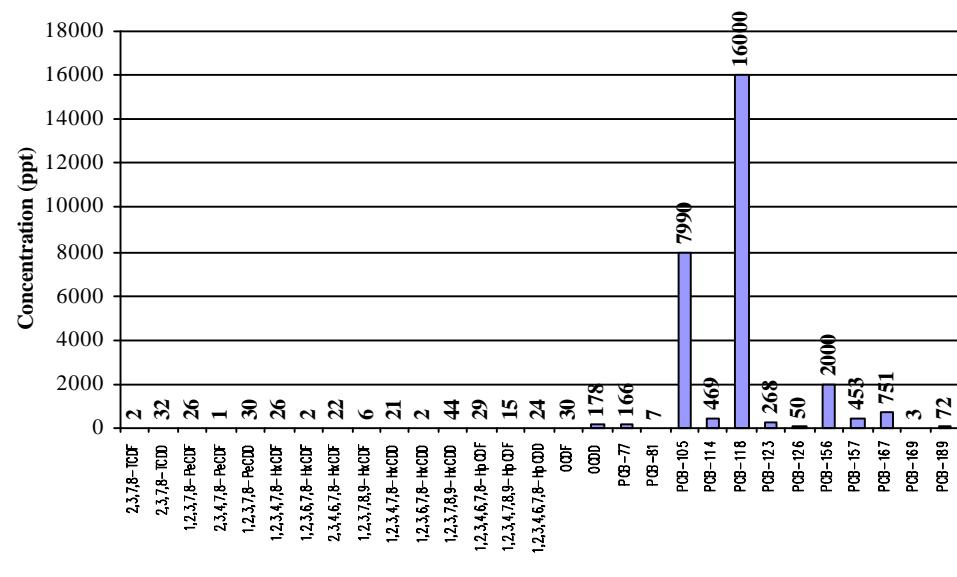


## Appendix B4. Congener Profiles for QC Samples

Sample PC00820 PEM PE Med Std

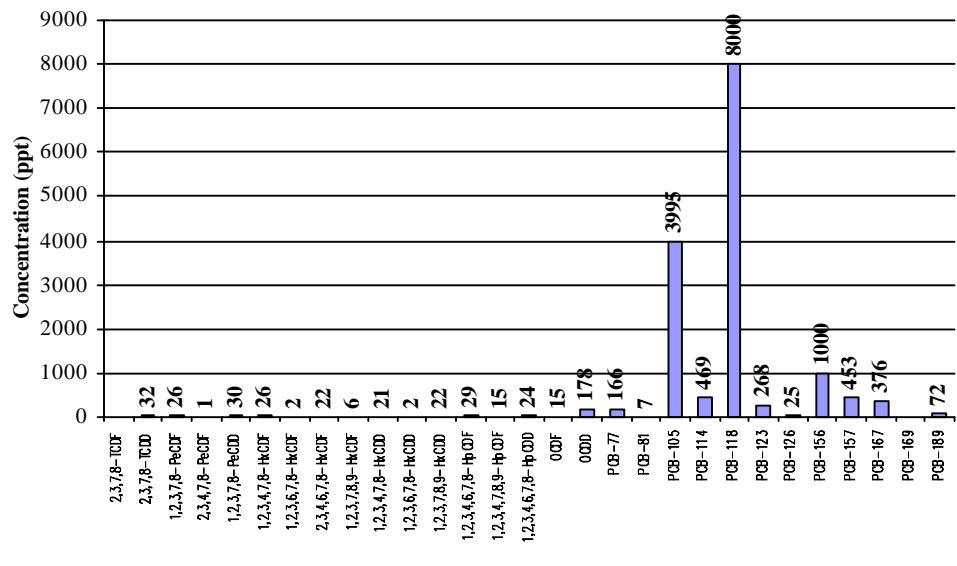
## Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



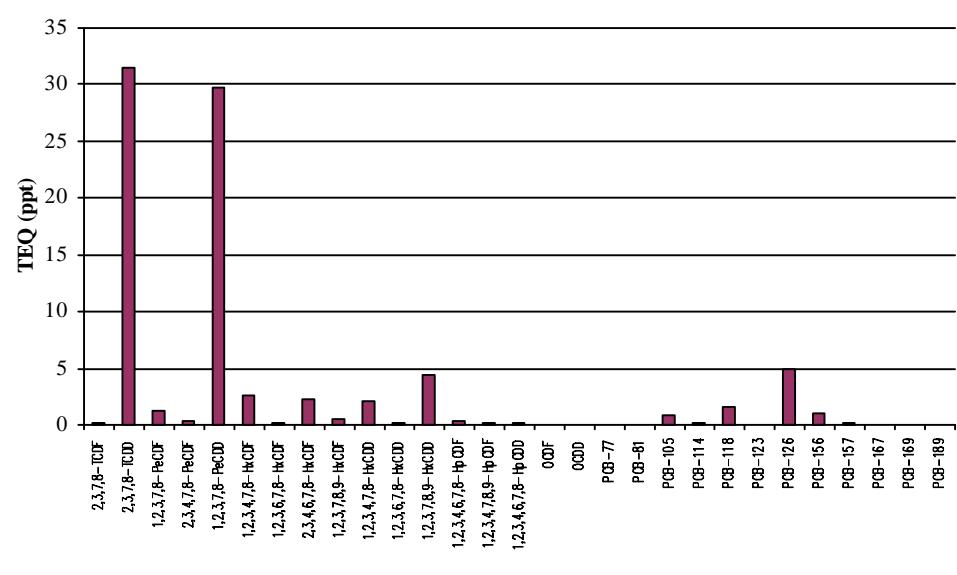
## Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)



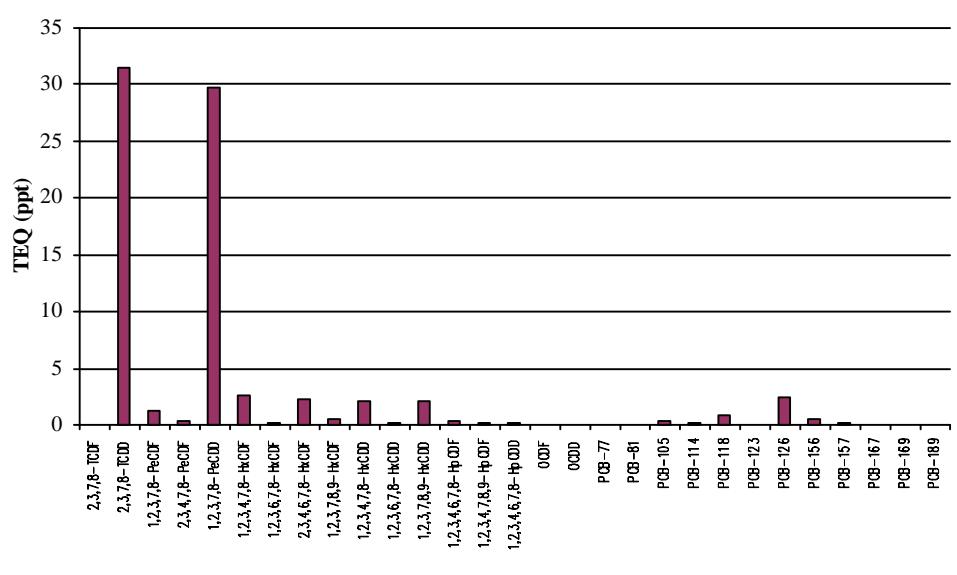
## Full TEQs: Congener Profile

(Full Data Set With Proxies = 1/2 DL)



## Quantitative TEQs: Congener Profile

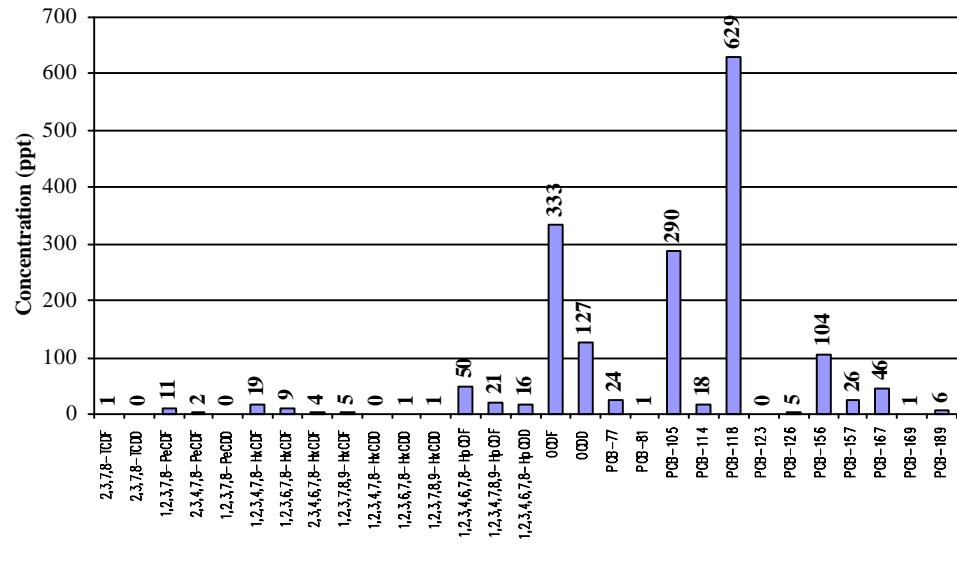
(Quantitative Data Set; Values Greater Than QL)



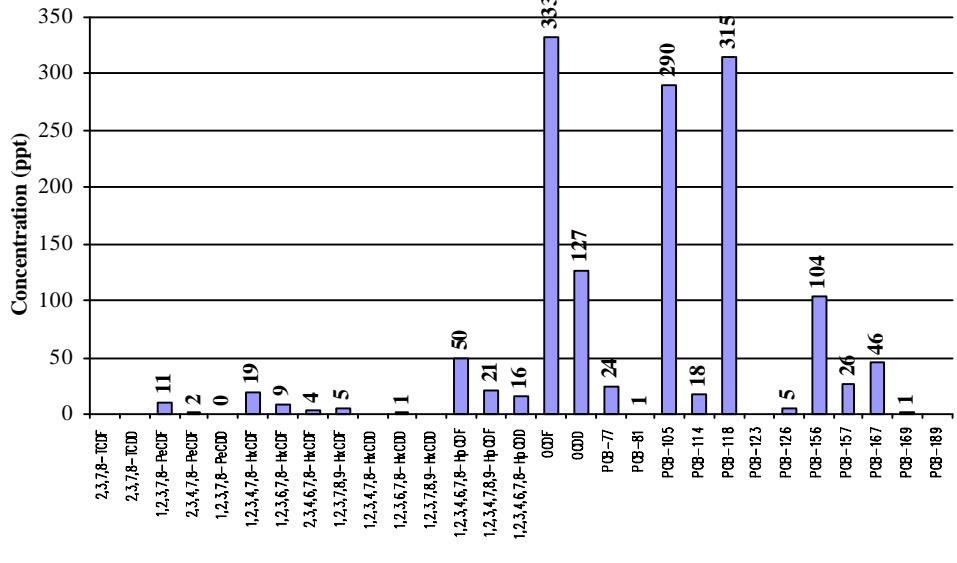
## Appendix B4. Congener Profiles for QC Samples

*Sample*      333      *S1*      *Split*

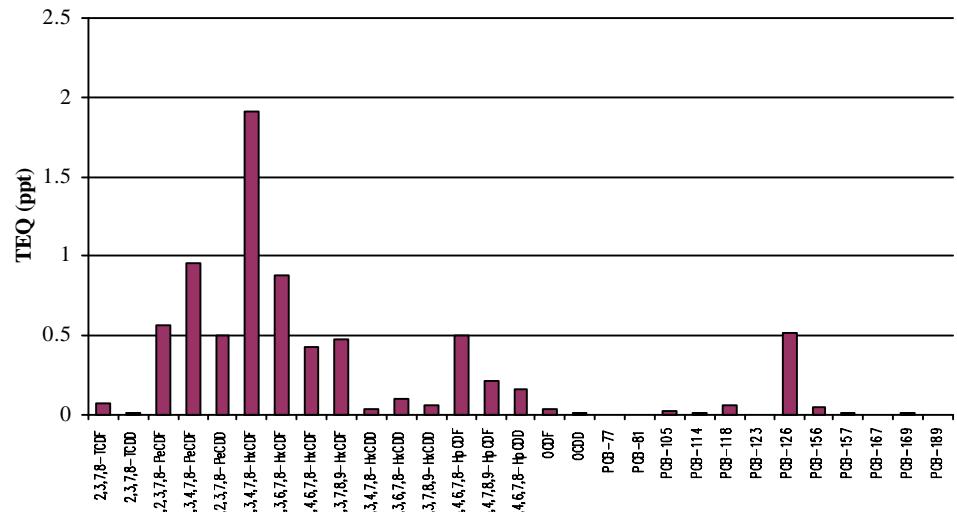
**Full Concentrations: Congener Profile**  
(Full Data Set With Proxies = 1/2 DL)



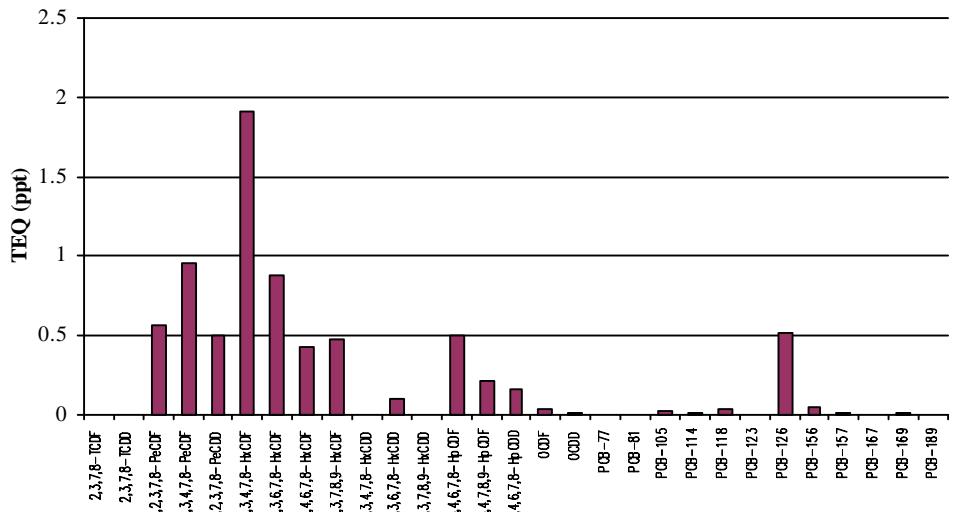
**Quantitative Concentrations: Congener Profile**  
(Quantitative Data Set; Values Greater Than QL)



**Full TEQs: Congener Profile**  
(Full Data Set With Proxies = 1/2 DL)



**Quantitative TEQs: Congener Profile**  
(Quantitative Data Set; Values Greater Than QL)



## Appendix B4. Congener Profiles for QC Samples

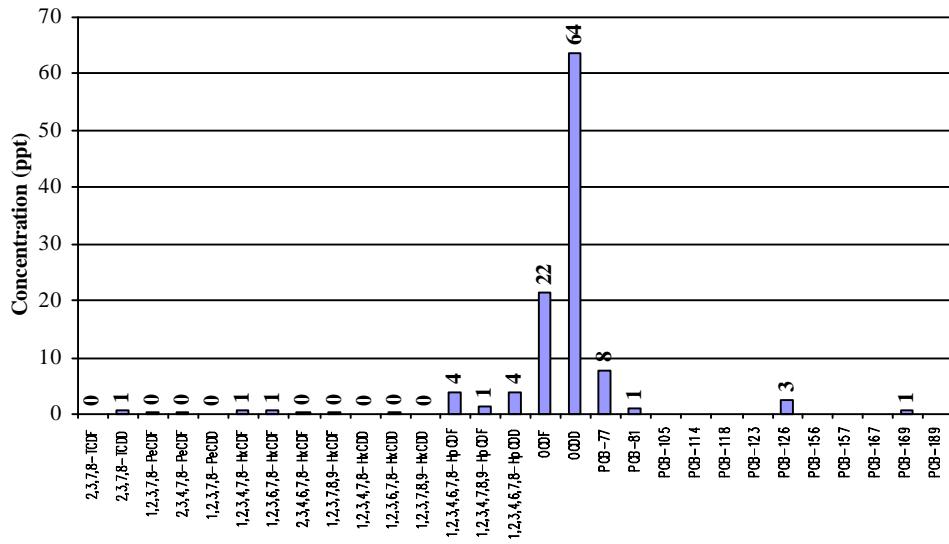
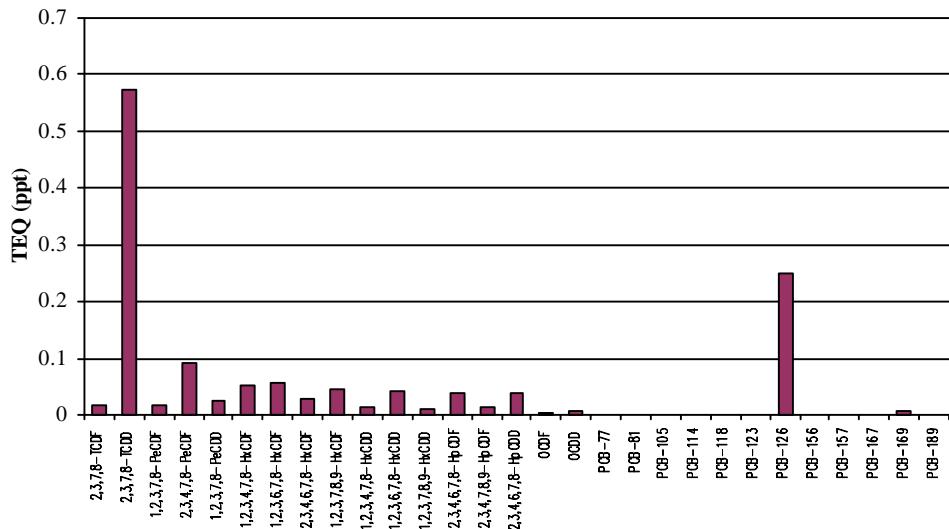
Sample 743

S5 Split

Several analytes not reported

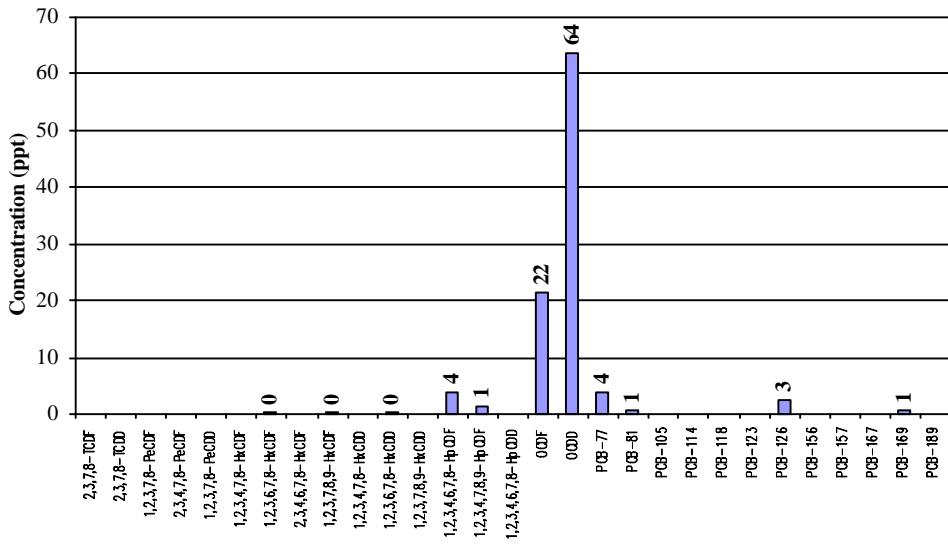
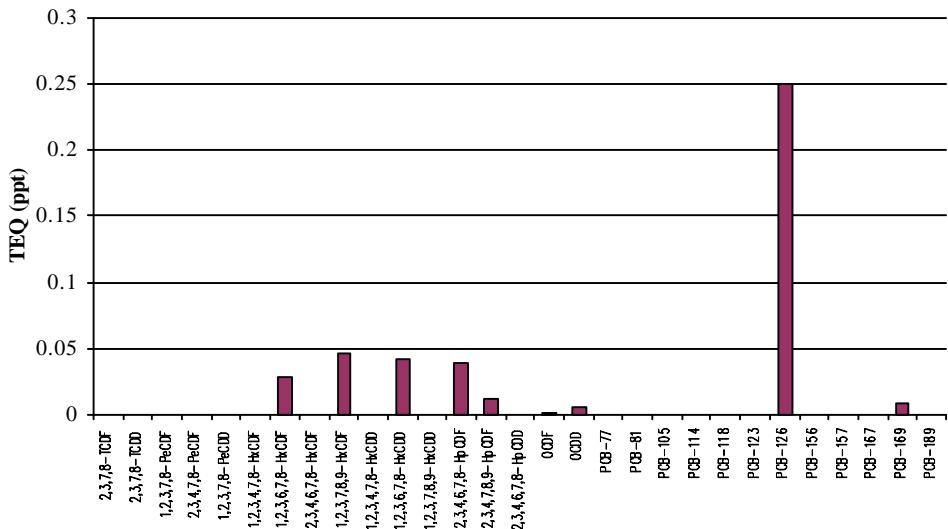
## Full Concentrations: Congener Profile

(Full Data Set With Proxies = 1/2 DL)

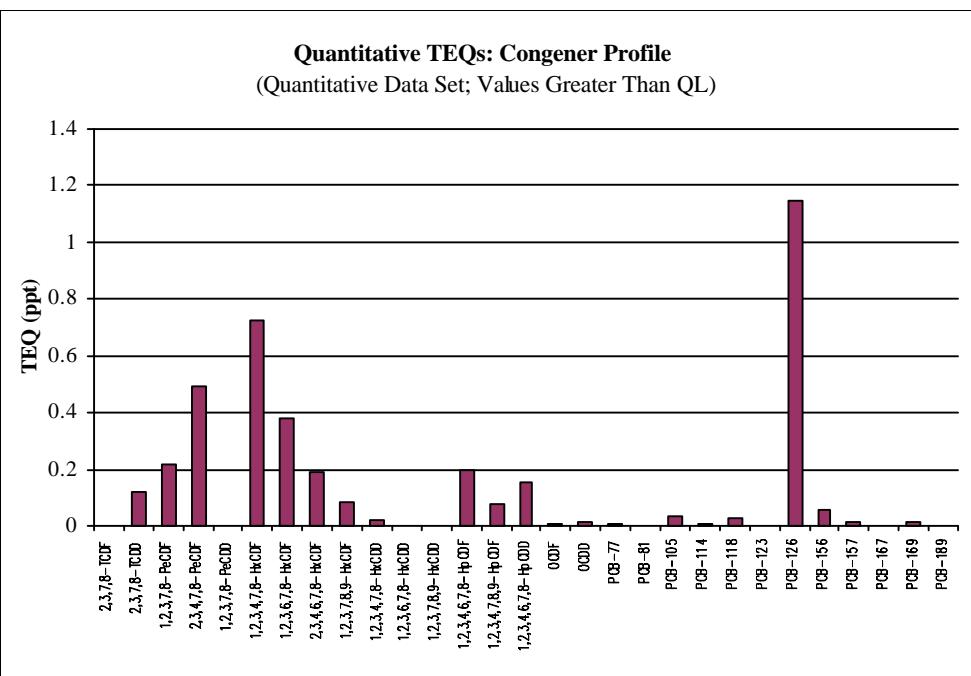
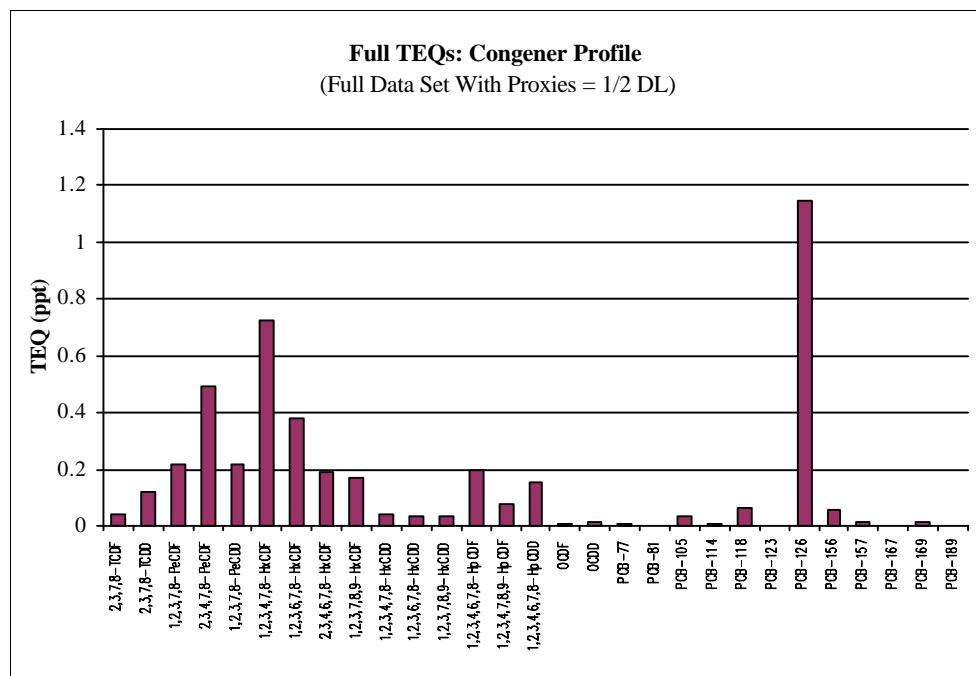
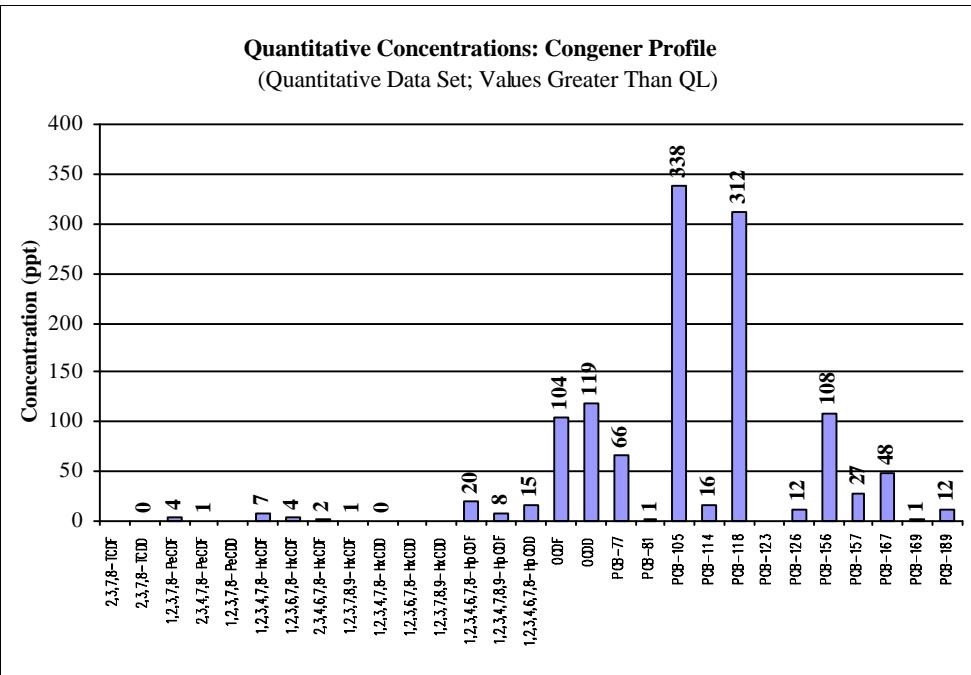
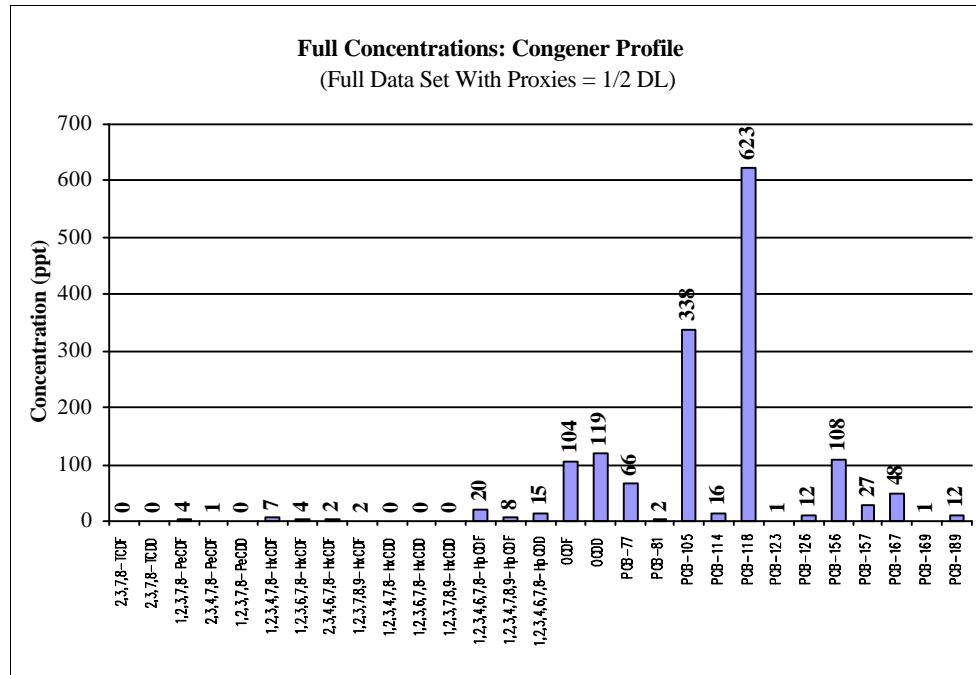
Full TEQs: Congener Profile  
(Full Data Set With Proxies = 1/2 DL)

## Quantitative Concentrations: Congener Profile

(Quantitative Data Set; Values Greater Than QL)

Quantitative TEQs: Congener Profile  
(Quantitative Data Set; Values Greater Than QL)

Sample 874 S35 Split

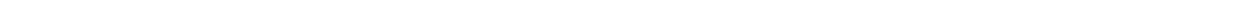


## **APPENDIX C**

### **DETAILED SAMPLE LOCATION INFORMATION**

PtName	Sample ID	Easting	Northing	Surveyor
SEC01	463	2187539.07	178957.11	Flatirons Surv 12-99
SEC02	429	2182021.96	179202.05	Flatirons Surv 12-99
SEC03	641	2177820.98	179878.02	Flatirons Surv 12-99
SEC04	102	2169371.03	176753.17	MorrisonKnudsen
SEC05	234	2198952.59	178135.39	MorrisonKnudsen
SEC06	830	2192335.03	179844.98	Flatirons Surv 12-99
SEC07	788	2191219.50	173448.93	MorrisonKnudsen
SEC08	589	2197936.12	170698.52	MorrisonKnudsen
SEC09	249	2172412.77	172547.45	MorrisonKnudsen
SEC11	318	2180655.65	174864.02	MorrisonKnudsen
SEC12	567	2186907.95	172782.65	MorrisonKnudsen
SEC19	187	2189238.07	194952.04	Flatirons Surv 12-99
SEC20	291	2194460.02	191888.03	Flatirons Surv 12-99
SEC22	644	2177768.88	194786.02	Flatirons Surv 12-99
SEC23	521	2179847.01	194886.07	Flatirons Surv 12-99
SEC24	385	2188314.99	191921.01	Flatirons Surv 12-99
SEC25	847	2188281.96	188609.07	Flatirons Surv 12-99
SEC26	547	2179122.57	187349.46	MorrisonKnudsen
SEC27	768	2175618.08	188746.13	MorrisonKnudsen
SEC28	264	2172503.22	189086.84	MorrisonKnudsen
SEC29	443	2197624.05	186501.07	Flatirons Surv 12-99
SEC30	736	2192385.10	188642.03	Flatirons Surv 12-99
SEC31	616	2190657.04	182057.64	MorrisonKnudsen
SEC32	945	2194542.90	184425.00	Flatirons Surv 12-99
SEC33	564	2171360.21	185361.68	MorrisonKnudsen
SEC34	693	2173521.43	183021.32	MorrisonKnudsen
SEC35	389	2182976.90	182003.00	Flatirons Surv 12-99
SEC36	991	2188286.06	184257.91	Flatirons Surv 12-99

**APPENDIX D**  
**MAPS OF TEQ RESULTS**

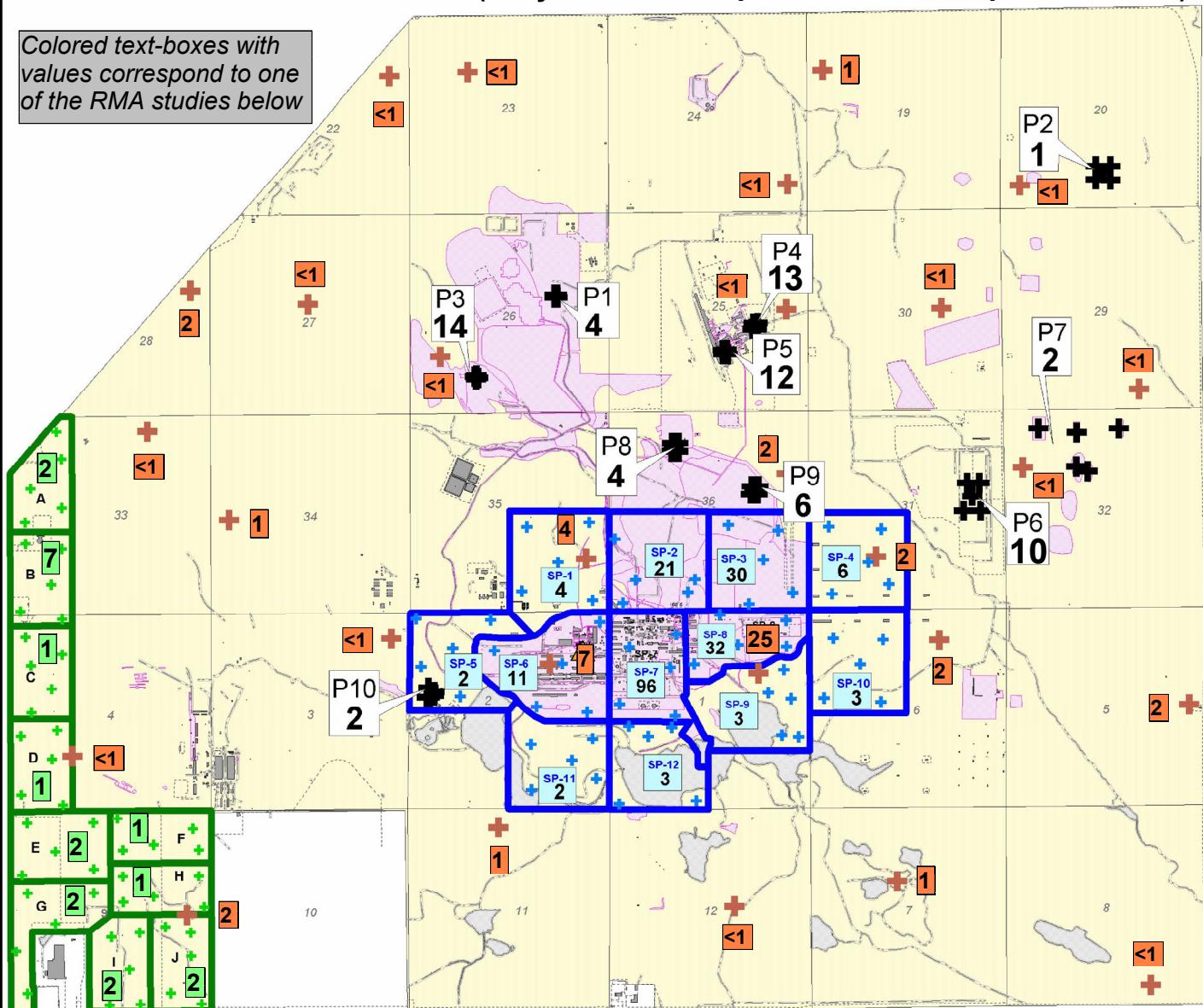


## Results of Dioxin Concentrations (TEQ, ppt) in Soils at the RMA

June 2001

( + symbols on map denote soil sample locations )

*Colored text-boxes with values correspond to one of the RMA studies below*



**Study 3 - Western Tier Parcel**

## **Study 4a - South Plants Sites**

## **Study 2 - Random Grab Sites**

## **Study 4b - Historic Use Sites**

## **Study 1 - Off-post Random Study (data not shown here)**



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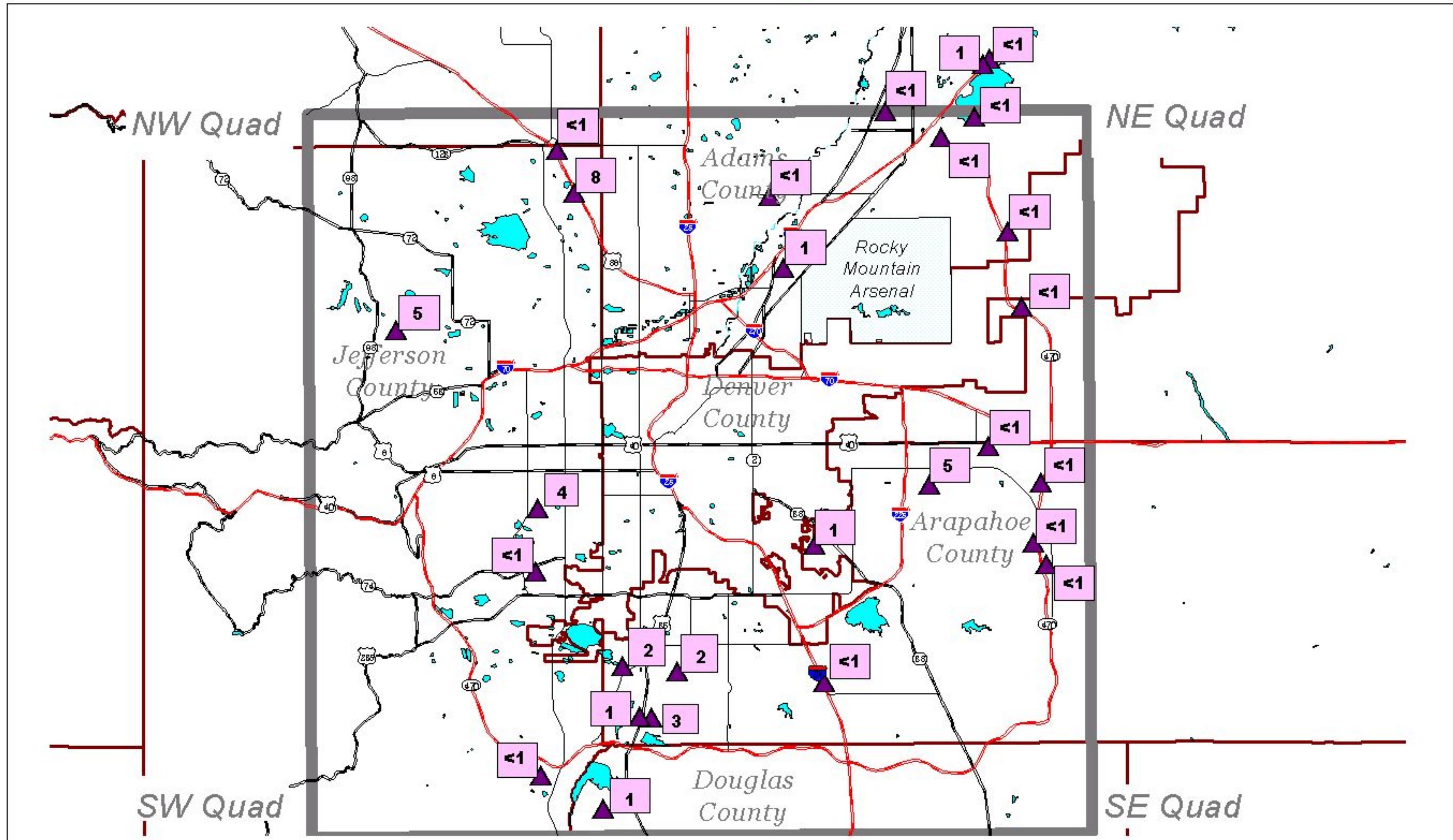
2000 0 2000 4000 Feet

**ROCKY MOUNTAIN ARSENAL  
CDPHE SAMPLE LOCATIONS  
TOXICITY EQUIVALENT VALUES (ppt)  
FROM COMPOSITE SOIL SAMPLES**

*Map was modified to show all soil results at RMA, produced by Gerry Henningsen, USEPA R8*

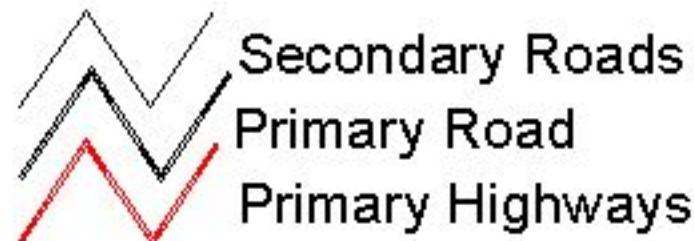
# Results of Denver Front Range Dioxin Study (TEQ ppt)

## *Land Use - Agricultural*



## **2** Toxicity Equilavent Values (ppt)

### Agricultural Sample Locations

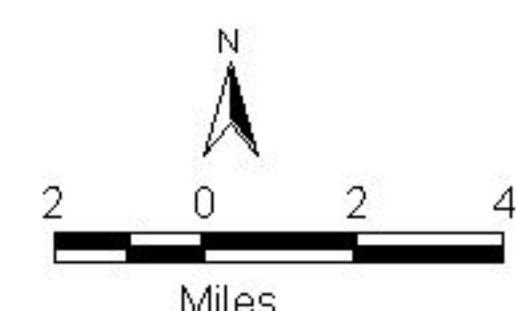


#### Targeted Study Area

County

## Lakes

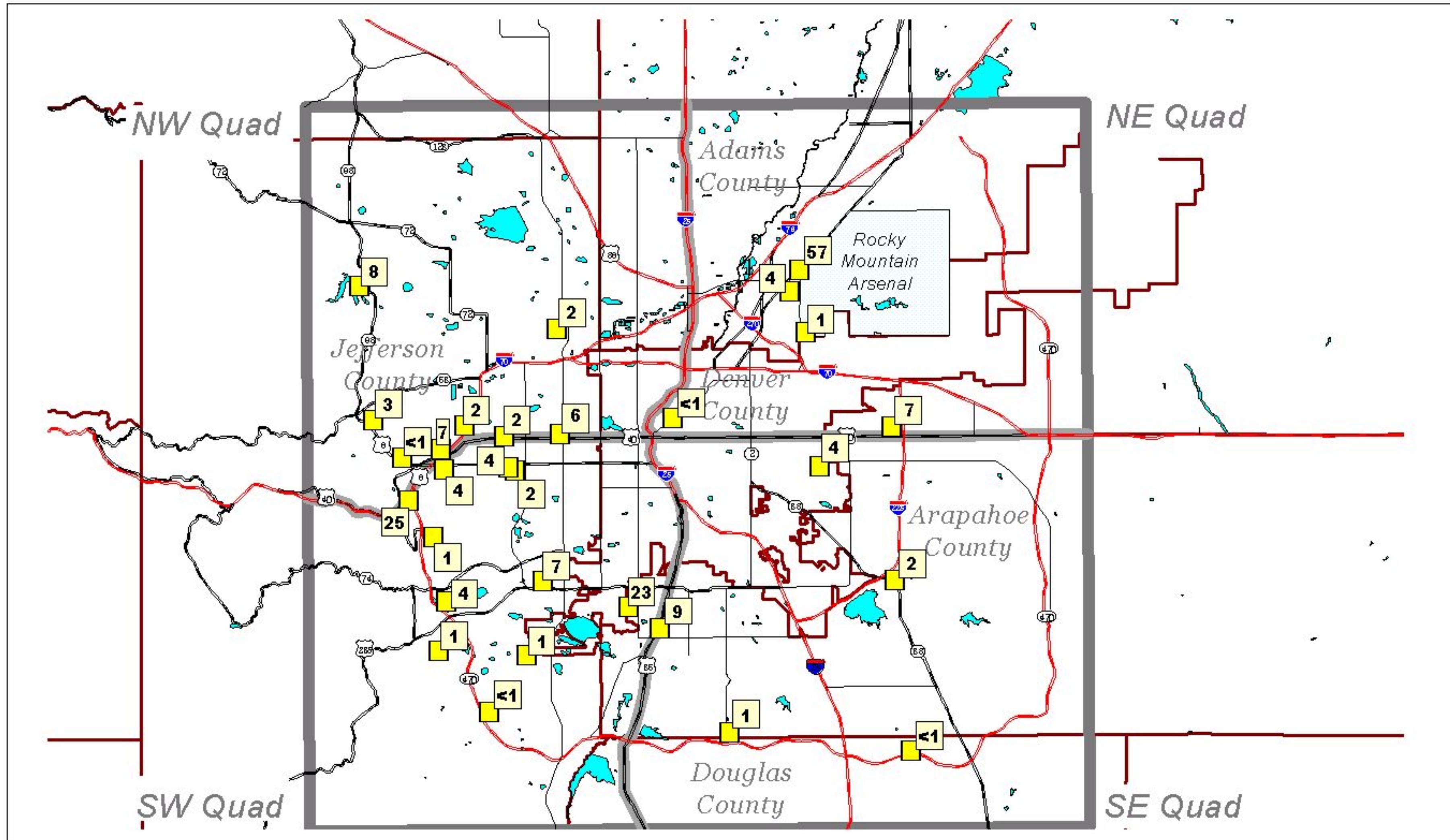
 Rocky Mountain Arsenal



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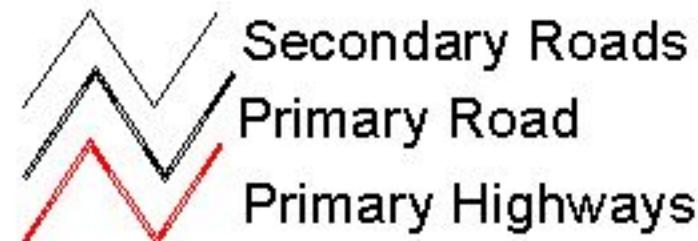
# **Results of Denver Front Range Dioxin Study (TEQ ppt)**

## ***Land Use - Commercial***



## **2** Toxicity Equivalent Values (ppt)

## Commercial Sample Locations

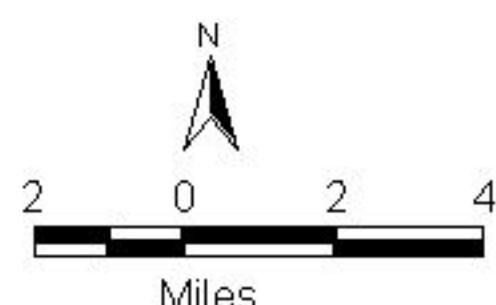


## Targeted Study Area

County

1

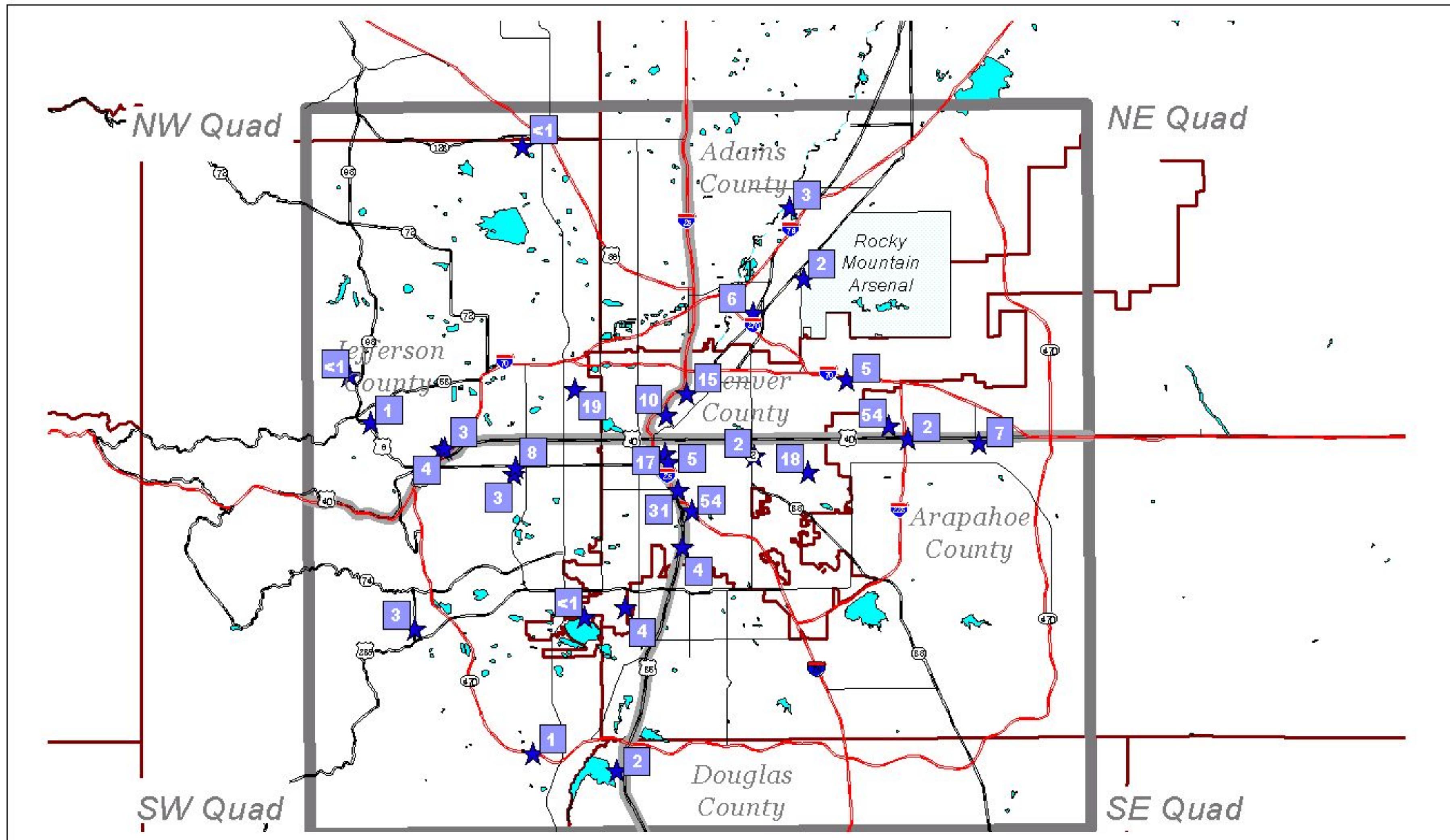
- Lakes
- Rocky Mountain Arsenal



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# Results of Denver Front Range Dioxin Study (TEQ ppt)

## Land Use - Industrial



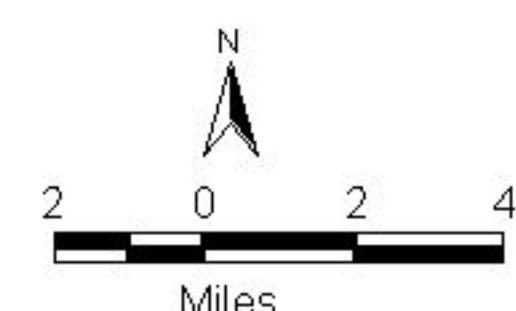
- 2 Toxicity Equivalent Values (ppt)
- ★ Industrial Sample Locations
- Secondary Roads
- Primary Road
- Primary Highways

Targeted Study Area

County

Lakes

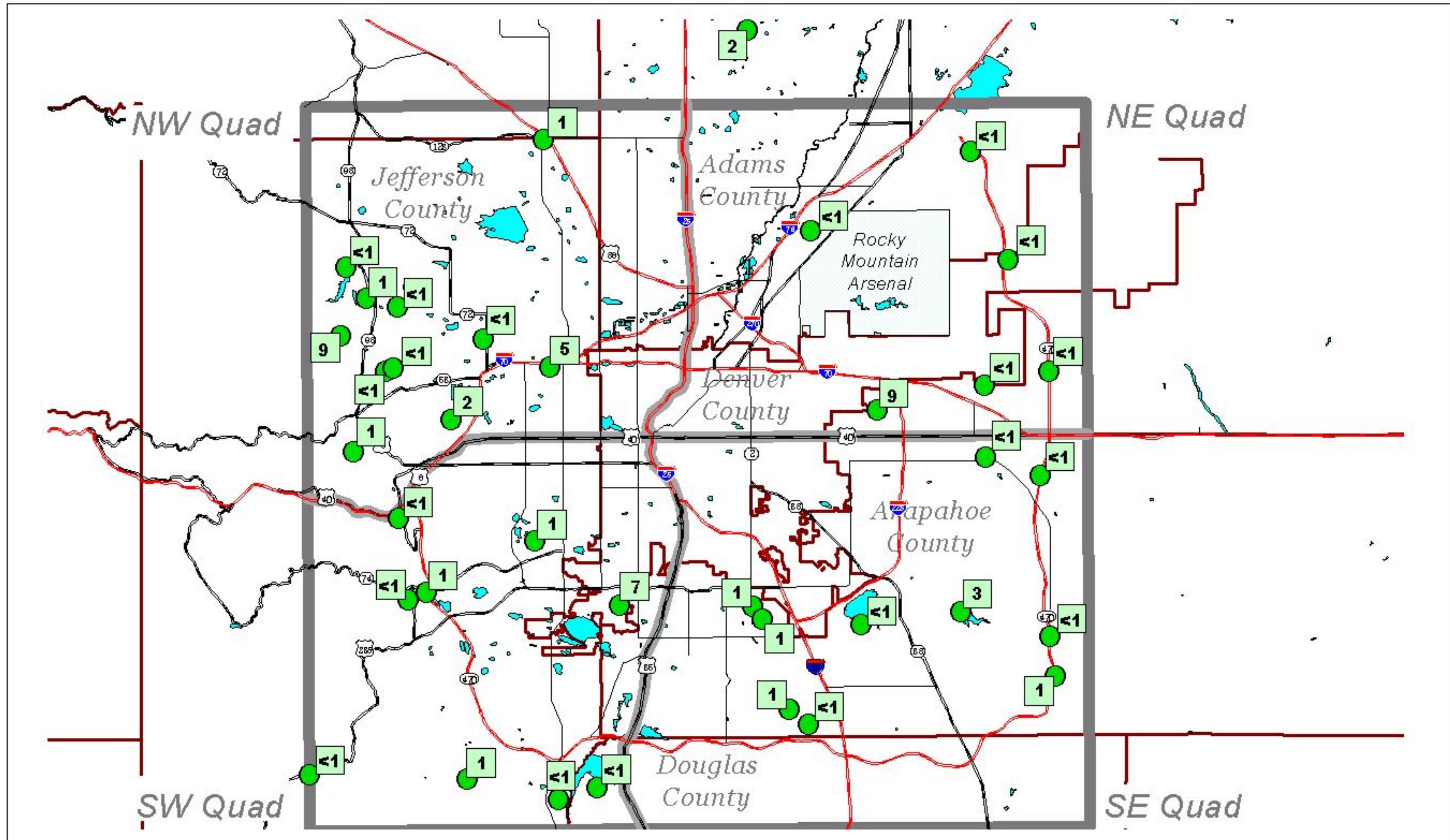
Rocky Mountain Arsenal



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# Results of Denver Front Range Dioxin Study (TEQ ppt)

## *Land Use - Open Space*



- 2 Toxicity Equivalent Values (ppt)
- Open Space Sample Locations

### Targeted Study Area

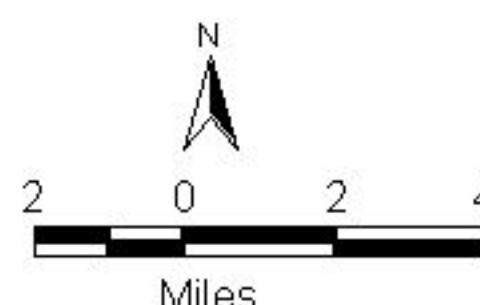
County

## Lakes

 Rocky Mountain Arsenal

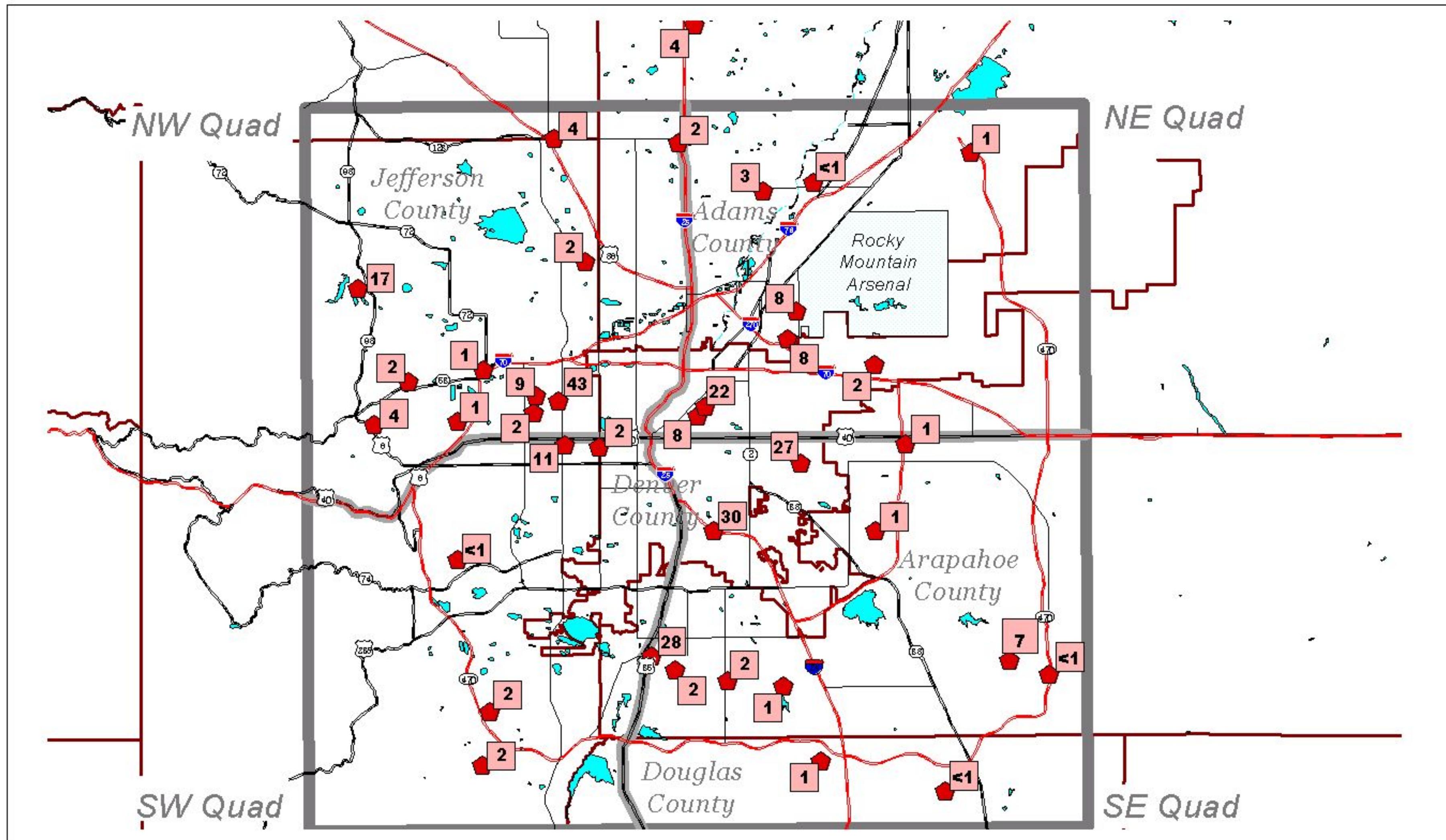


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# Results of Denver Front Range Dioxin Study (TEQ ppt)

## *Land Use - Residential*



## 2 Toxicity Equivalent Values (ppt)

 Residential Sample Locations

## Secondary Roads

## Primary Road

### Primary Highways

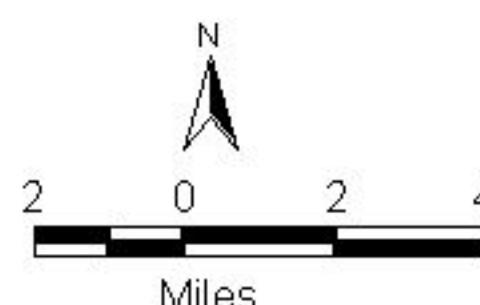


County

Lokse

Lakeview

 Rocky Mountain Arsenal



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